

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM S-1  
REGISTRATION STATEMENT**  
*UNDER  
THE SECURITIES ACT OF 1933*

**CERULEAN PHARMA INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**2834**  
(Primary Standard Industrial  
Classification Code Number)  
**840 Memorial Drive**  
**Cambridge, MA 02139**  
**(617) 551-9600**

**20-4139823**  
(I.R.S. Employer  
Identification No.)

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Dr. Oliver S. Fetzer**  
**President and Chief Executive Officer**  
**Cerulean Pharma Inc.**  
**840 Memorial Drive**  
**Cambridge, MA 02139**  
**(617) 551-9600**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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**Approximate date of commencement of proposed sale to the public:** As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 ("Securities Act"), check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer   
Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities To Be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(2)
Common Stock, \$0.0001 par value per share	75,000,000	9,660

- (1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.  
(2) Calculated pursuant to Rule 457(o) based on a bona fide estimate of the maximum aggregate offering price.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to completion, dated March 10, 2014

PRELIMINARY PROSPECTUS



SHARES OF COMMON STOCK

Cerulean Pharma Inc. is offering \_\_\_\_\_ shares of its common stock. This is our initial public offering, and no public market currently exists for our shares. We anticipate that the initial public offering price will be between \$ \_\_\_\_\_ and \$ \_\_\_\_\_ per share.

Prior to this offering, there has been no public market for our common stock. We have applied to have our common stock listed on the NASDAQ Global Market under the symbol "CERU."

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012, and as such are subject to reduced public company disclosure standards. See "Summary—Implications of Being an Emerging Growth Company."

**Investing in our common stock involves a high degree of risk. Before buying any shares, you should carefully read the discussion of material risks of investing in our common stock in "[Risk Factors](#)" beginning on page 11 of this prospectus.**

	Per Share	Total
Initial public offering price	\$ _____	\$ _____
Underwriting discounts and commissions(1)	\$ _____	\$ _____
Proceeds to us, before expenses	\$ _____	\$ _____

(1) We have agreed to reimburse the underwriters for certain expenses in connection with this offering. See "Underwriting."

We have granted the underwriters an option for a period of 30 days to purchase up to an additional \_\_\_\_\_ shares of common stock to cover any over-allotments. The underwriters can exercise this right at any time within 30 days after the date of this prospectus.

**Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.**

The underwriters expect to deliver the shares of common stock to investors on or about \_\_\_\_\_, 2014.

**Leerink Partners**

**Canaccord Genuity**

**JMP Securities**

**Wedbush PacGrow Life Sciences**

The date of this prospectus is \_\_\_\_\_, 2014.

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You should rely only on the information contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. We have not authorized anyone to provide you with different information. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: We have not and the underwriters have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

## PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the “Risk Factors” section beginning on page 10 and our consolidated financial statements and the related notes appearing at the end of this prospectus, before making an investment decision.*

*As used in this prospectus, unless the context otherwise requires, references to “we”, “us”, “our”, the “company” and “Cerulean” refer to the consolidated operations of Cerulean Pharma Inc., and its consolidated subsidiary, Cerulean Pharma Australia Pty Ltd.*

### Company Overview

We are a clinical-stage oncology-focused company applying our proprietary dynamic tumor targeting platform to develop differentiated therapies. Our nanopharmaceutical product candidates consist of proprietary polymers that are covalently linked to anti-cancer therapeutics, or payloads. We believe these nanopharmaceuticals dynamically target tumors by exploiting the leakiness of new blood vessels in tumors as an entry portal into tumor tissue, followed by active uptake into tumor cells and the sustained release of the anti-cancer payload inside the tumor cells.

Our lead product candidate, CRLX101, is in Phase 2 clinical development and has the potential to address an unmet need where existing cancer therapies fail. We believe CRLX101, which contains camptothecin as its anti-cancer payload, is a potent, durable and combinable inhibitor of topoisomerase 1, or topo 1, a commercially validated cancer target, and hypoxia inducible factor, or HIF, a novel target of increasing interest in cancer research. Recent research suggests that HIF-1a is a master regulator of multiple cancer cell survival pathways.

CRLX301, the second product candidate from our dynamic tumor targeting platform, is a nanopharmaceutical with docetaxel, a potent and durable microtubule stabilizer, as its anti-cancer payload. We expect to commence a clinical trial of CRLX301 by the end of 2014.

### Our Pipeline

The table below summarizes the status of our two lead product candidates. We have global rights to our product candidates.

Product Candidate	Indication	Preclinical	Phase 1	Phase 2	Phase 3
CRLX101	Relapsed renal cell carcinoma	Phase 1b / 2			
	Relapsed ovarian cancer	Phase 2			
	Neoadjuvant rectal cancer	Phase 1b / 2			
CRLX301	Solid tumors	Preclinical			

### *CRLX101*

The clinical development of CRLX101 is focused on cancer indications in which the durable inhibition of topo 1 and HIF, in combination with other cancer treatments, is expected to lead to differentiated efficacy. With over 200 patients dosed to date, CRLX101 has demonstrated activity and been well tolerated as monotherapy and in combination with Avastin® (bevacizumab), a leading anti-cancer drug. Initially, we are focusing on combinations with vascular endothelial growth factor, or VEGF, inhibitors or with chemoradiotherapy, where our preclinical studies have demonstrated notable synergies. In addition, we believe CRLX101 may be combinable with other anti-cancer therapies.

We are pursuing development of CRLX101 in combination with anti-cancer therapies in three ongoing clinical development programs:

*Relapsed Renal Cell Carcinoma:* A Phase 1b/2 open-label investigator sponsored trial, or IST, of CRLX101 in combination with Avastin is being conducted in patients with relapsed renal cell carcinoma. Based on preliminary results from this trial, we believe that the combination of CRLX101 and Avastin may provide therapeutic benefit to relapsed renal cell carcinoma patients. We believe that the therapeutic benefits observed to date in the trial are due to CRLX101's synergy with Avastin and the resulting durable suppression of HIF, topo 1 and VEGF. We intend to commence a randomized, well-controlled Phase 2 clinical trial of CRLX101 in combination with Avastin in the second half of 2014.

*Relapsed Ovarian Cancer:* A two-part Phase 2 open-label IST of CRLX101 is being conducted in patients with relapsed ovarian cancer. The first part of the trial, a single-arm trial of CRLX101 as monotherapy, has completed enrollment and met its primary progression free survival endpoint with at least four patients having achieved progression free survival time on trial of six months or longer. Platinum-resistant ovarian cancer patients are being enrolled in the second part, a single-arm combination trial of CRLX101 and Avastin. Assuming positive results from the second part of the trial, we expect to initiate, in 2015, a randomized pivotal clinical trial of CRLX101 in combination with Avastin in relapsed platinum-resistant ovarian cancer intended to provide evidence to support regulatory approval in this indication.

*Neoadjuvant Rectal Cancer:* A Phase 1b/2 open-label IST of CRLX101 in combination with chemoradiotherapy, consisting of Xeloda® (capecitabine) and radiotherapy, is being conducted in patients with rectal cancer who are being treated through the administration of therapeutic agents prior to surgery. We refer to this form of treatment as neoadjuvant therapy, and we refer to patients who receive neoadjuvant therapy as patients with neoadjuvant rectal cancer. Assuming favorable results from this Phase 1b/2 trial, we intend to commence a randomized, well-controlled Phase 2 clinical trial of CRLX101 in combination with chemoradiotherapy by the end of 2014.

### *CRLX301*

We expect to advance CRLX301 into a clinical trial by the end of 2014 after we complete the manufacture of clinical supply. Our target product profile for CRLX301 aims to demonstrate improved efficacy, safety and combinability compared to docetaxel, consistent with the results of our preclinical studies, including toxicology in different animal species. We believe that enhanced efficacy and a favorable safety profile for CRLX301 would enable combination therapies with anti-cancer therapies that may not be combinable today due to docetaxel's toxicities. For clinical development of CRLX301, we expect to choose from among those tumor types in which docetaxel is approved and active, in which docetaxel is not approved but where taxanes have demonstrated efficacy or in which resistance to prior taxanes has been established. Such possible tumor types include, among others, breast cancer, prostate cancer, ovarian cancer, melanoma and head and neck cancer.

*Other Product Opportunities*

In addition to CRLX101 and CRLX301, we have generated additional nanopharmaceuticals using our dynamic tumor targeting platform. These nanopharmaceuticals incorporate small molecules and large molecules, such as RNA, as their payload. We intend to pursue additional product opportunities either by ourselves or in strategic partnerships with pharmaceutical companies to maximize value generation from our platform.

**Our Strategy**

Our goal is to be a leader in the discovery, development and commercialization of nanopharmaceuticals for the treatment of patients with inadequately treated forms of cancer. Key elements of our strategy to achieve this goal are:

- ***Advance the clinical development of our lead product candidate, CRLX101, in multiple tumor types.*** Based on confirmatory signals observed in the ongoing relapsed renal cell carcinoma clinical trial, we plan to initiate a randomized Phase 2 clinical trial of CRLX101 in combination with Avastin in this indication in the second half of 2014. We expect to initiate a randomized Phase 2 clinical trial of CRLX101 in combination with chemoradiotherapy in neoadjuvant rectal cancer by the end of 2014 and a randomized pivotal clinical trial of CRLX101 in combination with Avastin in relapsed platinum-resistant ovarian cancer in 2015, assuming continued confirmatory signals from ongoing CRLX101 clinical trials.
- ***Advance our second product candidate, CRLX301, into clinical development by the end of 2014.*** We expect to initiate a Phase 1 clinical trial of CRLX301 by the end of 2014. Assuming we are successful in establishing a safe maximum tolerated dose in the Phase 1 trial, we plan to advance CRLX301 into Phase 2 development.
- ***Leverage our platform to discover and develop a proprietary pipeline of highly differentiated product candidates with small molecule anti-cancer payloads.*** Using our dynamic tumor targeting platform, we have created two product candidates, CRLX101 and CRLX301, with small molecule anti-cancer payloads. We have used our platform to create additional nanopharmaceuticals, and we intend over the longer term to develop additional product candidates from the platform.
- ***Leverage our platform beyond our proprietary pipeline to enter into strategic partnerships for the development of product candidates.*** We believe that our platform can be used with a wide range of small and large molecule payloads, such as RNA. While our focus is on oncology, our preclinical data demonstrates that our platform may also be applicable in certain inflammatory diseases. We plan to explore the possibility of entering into partnerships with companies that have proprietary small or large molecule payloads targeting oncology or inflammation indications. We envision selective partnerships with pharmaceutical companies, in which we would leverage the partner's expertise in combination with our platform, to generate novel nanopharmaceuticals incorporating the partner's approved therapeutic or development candidate.
- ***Build core capabilities that allow us to commercialize our products in the United States.*** In order to maximize the value of our product candidates, if approved, we expect to commercialize our products in the United States with a focused commercialization organization and to seek one or more strategic partners for commercialization outside the United States.

### **Risks Associated with Our Business**

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the “Risk Factors” section of this prospectus immediately following this Prospectus Summary. These risks include the following:

- We have incurred significant losses since our incorporation. We expect to incur losses over the next several years and may never achieve or maintain profitability. As of December 31, 2013, we had an accumulated deficit of \$98.4 million.
- We will need substantial additional funding. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts. If we elect to obtain any additional debt financing, our ability to do so may be limited by covenants we have made under our loan and security agreement with Lighthouse Capital Partners VI, L.P., or Lighthouse Capital, and our pledge to Lighthouse Capital of substantially all of our assets, other than our intellectual property, as collateral.
- Our approach to the discovery and development of product candidates based on our dynamic tumor targeting platform is unproven, and we do not know whether we will be able to develop any products of commercial value.
- We are particularly dependent on the success of our product candidate, CRLX101. If we are unable to develop, obtain marketing approval for or successfully commercialize CRLX101, either alone or through a collaboration, or experience significant delays in doing so, our business could be materially harmed.
- Clinical drug development involves a lengthy and expensive process with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates. The clinical development of our product candidates is susceptible to the risk of failure inherent in drug development, including failure to demonstrate efficacy, the occurrence of unacceptable adverse events and determination by the FDA or other applicable regulatory authorities that a drug candidate is not approvable.
- We are currently focusing the clinical development of CRLX101 on combinations with Avastin in relapsed renal cell carcinoma and relapsed ovarian cancer and with Xeloda and radiotherapy in neoadjuvant rectal cancer and may focus on additional combinations in the future. If the FDA revokes its approval of, or if safety, efficacy, manufacturing or supply issues arise with, either Avastin or Xeloda, or any other therapeutic that we use in combination with CRLX101 in the future, we may be unable to market CRLX101 or may experience significant regulatory delays or supply shortages, and our business could be materially harmed.
- We believe we may, in some instances, be able to secure approval from the FDA or comparable non-U.S. regulatory authorities to use accelerated development pathways. If unable to obtain such approval, we may be required to conduct additional preclinical studies or clinical trials beyond those that we contemplate, which could increase the expense of obtaining, and delay the receipt of, necessary marketing approvals.
- We rely on third parties to conduct investigator sponsored trials, or ISTs, and other clinical trials of our product candidates. Any failure by a third party to meet its obligations with respect to the clinical development of our drug candidates may delay or impair our ability to obtain regulatory approval for our product candidates. We do not control the design or administration of ISTs, and our reliance on third parties to conduct the ISTs could, depending on the actions of such third parties, jeopardize the validity of the clinical data generated and adversely affect our ability to obtain marketing approval from the FDA or other applicable regulatory authorities.



- If we are unable to obtain and maintain patent protection for our technology and products or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be impaired.
- CRLX101 and certain aspects of our platform technology are protected by patents exclusively licensed from other companies or institutions. If the licensors terminate the licenses or fail to maintain or enforce the underlying patents, our competitive position and our market share for any of our approved products will be harmed. In addition, if we fail to comply with our obligations under our intellectual property licenses with third parties, we could lose rights that are important to our business, including our rights to important intellectual property or technology.

### **Our Corporate Information**

We were incorporated under the laws of the State of Delaware on November 28, 2005 under the name Tempo Pharmaceuticals, Inc. In October 2008, we changed our name to Cerulean Pharma Inc. Our executive offices are located at 840 Memorial Drive, Cambridge, Massachusetts 02139, and our telephone number is (617) 551-9600. Our website address is [www.ceruleanrx.com](http://www.ceruleanrx.com). The information contained on, or that can be accessed through, our website does not constitute part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

### **Implications of Being an Emerging Growth Company**

We qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we are permitted and intend to rely on exemptions from specified disclosure and other requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than \$1 billion in annual revenue, we have more than \$700 million in market value of our stock held by non-affiliates or we issue more than \$1 billion of non-convertible debt over a three-year period. We may choose to take advantage of some or all of the available exemptions. We have taken advantage of certain reduced reporting burdens in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

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In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards, and therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

### The Offering

Common stock offered	shares
Common stock to be outstanding after this offering	shares
Over-allotment option	The underwriters have an option for a period of 30 days to purchase up to additional shares of our common stock to cover over-allotments.
Use of proceeds	We estimate that the net proceeds from this offering, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$ million, or approximately \$ million if the underwriters exercise their over-allotment option to purchase additional shares from us in full, assuming an initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus. We plan to use the net proceeds from this offering to fund clinical development of CRLX101, to fund research and development of CRLX301 and other product candidates and for working capital and other general corporate purposes. See “Use of Proceeds” for more information.
Risk factors	You should read the “Risk Factors” section beginning on page 10 of this prospectus and other information in this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Proposed NASDAQ Global Market symbol	“CERU”

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The number of shares of our common stock to be outstanding after this offering is based on 11,403,646 shares of our common stock outstanding as of January 31, 2014 and gives effect to the automatic conversion of all outstanding shares of our preferred stock into 99,028,475 shares of our common stock upon the closing of this offering as well as the issuance of shares of common stock issuable upon conversion of our 2013 convertible notes and shares of common stock issuable upon conversion of our 2014 convertible notes, each as described below.

The number of shares of our common stock to be outstanding after this offering excludes:

- 1,866,816 shares of common stock issuable upon exercise of warrants outstanding as of January 31, 2014, at a weighted-average exercise price of \$0.79 per share;
- 17,687,568 shares of common stock issuable upon exercise of stock options outstanding as of January 31, 2014, at a weighted-average exercise price of \$0.33 per share;
- 40,383 shares of common stock reserved and available as of January 31, 2014 for future issuance under our 2007 stock incentive plan, as amended; and
- and additional shares of our common stock that will be available for future issuance, as of the closing of this offering, under our 2014 stock incentive plan and our 2014 employee stock purchase plan, respectively.

Unless otherwise indicated, this prospectus reflects and assumes the following:

- no exercise of the outstanding options or warrants described above;
- no exercise by the underwriters of their option to purchase up to additional shares of our common stock to cover over-allotments;
- the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 99,028,475 shares of our common stock upon the closing of this offering;
- the automatic conversion of our outstanding warrants to purchase 1,857,226 shares of our preferred stock into warrants to purchase an aggregate of 1,866,816 shares of common stock, upon the closing of this offering;
- the issuance of shares of common stock upon the conversion of all outstanding principal and accrued interest on our 7% convertible promissory notes issued in August 2013, or our 2013 convertible notes, upon the closing of this offering, assuming an initial public offering price per share of \$ , which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on , 2014;
- the issuance of shares of common stock upon the conversion of all outstanding principal and accrued interest on our 7% convertible promissory notes issued in 2014, or our 2014 convertible notes, which convert at 77.5% of the initial public offering price, upon the closing of this offering, assuming an initial public offering price per share of \$ , which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on , 2014; and
- the filing of our restated certificate of incorporation and the adoption of our amended and restated bylaws upon the closing of this offering.

The number of shares of our common stock to be issued upon the automatic conversion of all outstanding principal and accrued interest on our 2013 convertible notes and our 2014 convertible notes upon the closing of this offering depends in part on the initial public offering price of our common stock and the date on which this offering closes. As a result, the actual number of shares of common stock issued upon such conversion may differ from the number of shares set forth above. If the initial public offering price is equal to \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, (1) the outstanding principal and accrued interest on our 2013 convertible notes would convert into an aggregate of shares of our common stock upon the closing of this offering and (2) the outstanding principal and accrued interest on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, or \$ per share, would convert into an aggregate of shares of our common stock upon the closing of this offering, in each case assuming that the offering closes on , 2014. A \$1.00 increase in the assumed initial public offering price of \$ per share would decrease by shares the aggregate number of shares of our common stock issuable upon the automatic conversion of the outstanding principal and interest accrued on our 2013 convertible notes upon the closing of this offering and would decrease by shares the aggregate number of shares of our common stock issuable upon the automatic conversion of the outstanding principal and interest accrued on our 2014 convertible notes upon the closing of this offering. A \$1.00 decrease in the assumed initial public offering price of \$ per share would increase by shares the aggregate number of shares of our common stock issuable upon the automatic conversion of the outstanding principal and interest accrued on our 2013 convertible notes upon the closing of this offering and would increase by shares the aggregate number of shares of our common stock issuable upon the automatic conversion of the outstanding principal and interest accrued on our 2014 convertible notes upon the closing of this offering.

**Summary Consolidated Financial Data**

The following summary consolidated financial data for the years ended December 31, 2012 and 2013 and for the period from November 28, 2005 (date of incorporation) to December 31, 2013 (as we are a development stage company) has been derived from our audited consolidated financial statements as of and for the years ended December 31, 2012 and 2013 included elsewhere in this prospectus. The summary consolidated financial data below should be read together with those consolidated financial statements as well as the “Selected Consolidated Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections in this prospectus. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period.

(in thousands, except share and per share data)	Years Ended December 31,		Period from November 28, 2005 (Date of Incorporation) to December 31, 2013
	2012	2013	
<b>Consolidated Statement of Operations:</b>			
Revenue	\$ 625	\$ 6	\$ 1,669
Operating expenses:			
Research and development	15,807	9,700	67,042
General and administrative	6,393	6,166	31,570
Total operating expenses	22,200	15,866	98,612
Other income (expense):			
Interest income	2	2	684
Interest expense	(567)	(1,487)	(2,395)
Decrease in value of preferred stock warrant liability	39	202	215
Total other (expense) — net	(526)	(1,283)	(1,496)
Net loss	(22,101)	(17,143)	(98,439)
Accretion of redeemable convertible preferred stock	(73)	—	(694)
Net loss attributable to common stockholders	\$ (22,174)	\$ (17,143)	\$ (99,133)
Net loss per share attributable to common stockholders:			
Basic and diluted (1)	\$ (2.51)	\$ (1.73)	\$ (11.36)
Weighted-average common shares outstanding:			
Basic and diluted	8,839,998	9,927,850	8,726,883
Pro forma net loss per share attributable to common stockholders (unaudited):			
Basic and diluted (1)		\$ (0.15)	
Pro forma weighted-average common shares outstanding (unaudited):			
Basic and diluted		114,351,117	

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(in thousands)	As of December 31,			Pro Forma As Adjusted (3)(4)
	2012	2013	Pro Forma (2)	
<b>Consolidated Balance Sheet Data:</b>				
Cash and cash equivalents	\$ 16,707	\$ 5,488		
Total assets	\$ 17,661	\$ 6,827		
Total liabilities	\$ 13,949	\$ 19,601		
Redeemable convertible preferred stock	\$ 83,751	\$ 81,525		
Common stock	\$ 1	\$ 1		
Additional paid in capital	\$ 1,256	\$ 4,139		
Accumulated deficit	\$(81,296)	\$(98,439)		
Total stockholders (deficit) equity	\$(80,039)	\$(94,299)		

(1) See notes 2 and 3 within the notes to our consolidated financial statements appearing elsewhere in this prospectus for a description of the method used to calculate basic and diluted net (loss) income per share applicable to common stockholders and pro forma basic and diluted net (loss) income per share applicable to common stockholders.

(2) The pro forma balance sheet data give effect to (i) the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 99,028,475 shares of common stock upon the closing of this offering, (ii) the issuance of \_\_\_\_\_ shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2013 convertible notes upon the closing of this offering, assuming an initial public offering price per share of \$ \_\_\_\_\_, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on \_\_\_\_\_, 2014, (iii) the issuance of \_\_\_\_\_ shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, upon the closing of this offering, assuming an initial public offering price per share of \$ \_\_\_\_\_, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on \_\_\_\_\_, 2014 and (iv) the conversion of our outstanding warrants to purchase 1,857,226 shares of our preferred stock into warrants to purchase 1,886,816 shares of common stock upon the closing of this offering.

(3) The pro forma as adjusted balance sheet data give effect to our issuance and sale of \_\_\_\_\_ shares of common stock in this offering at an assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(4) A \$1.00 increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, total assets and total stockholders' (deficit) equity by approximately \$ \_\_\_\_\_, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

## RISK FACTORS

*Investing in our common stock involves a high degree of risk. Before you decide to invest in our common stock, you should carefully consider the risks and uncertainties described below, together with the other information contained in this prospectus, including our consolidated financial statements and the related notes appearing at the end of this prospectus. If any of the following risks occur, our business, financial condition, results of operations and prospects could be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you might lose all or part of your investment.*

### **Risks Related to our Financial Position and Need for Additional Capital**

***We have incurred significant losses since incorporation. We expect to incur losses over the next several years and may never achieve or maintain profitability.***

Since incorporation, we have incurred significant operating losses. Our net loss was approximately \$22.1 million for the year ended December 31, 2012 and \$17.1 million for the year ended December 31, 2013. As of December 31, 2013, we had an accumulated deficit of \$98.4 million. We do not know whether or when we will become profitable. We have not generated any revenues to date from product sales and have financed our operations primarily through private placements of our preferred stock, convertible debt financings and secured debt financings. We have not completed development of any product candidate and have devoted substantially all of our financial resources and efforts to research and development, including preclinical studies and clinical trials. We expect to continue to incur significant expenses and operating losses over the next several years. Our net losses may fluctuate significantly from quarter to quarter and year to year. Net losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders deficit and working capital. We anticipate that our expenses will increase substantially if and as we:

- initiate the following planned clinical trials of CRLX101, our most advanced product candidate: a Phase 2 clinical trial in combination with Avastin (bevacizumab) in patients with relapsed renal cell carcinoma; a pivotal clinical trial in combination with Avastin in patients with relapsed platinum-resistant ovarian cancer; and a Phase 2 clinical trial in combination with chemoradiotherapy in patients with rectal cancer who are being treated through the administration of therapeutic agents prior to surgery. We refer to this form of treatment as neoadjuvant therapy, and we refer to patients who receive neoadjuvant therapy as patients with neoadjuvant rectal cancer;
- continue to support ongoing investigator-sponsored clinical trials, or ISTs, of CRLX101 in relapsed renal cell carcinoma, relapsed ovarian cancer, neoadjuvant rectal cancer, gastric cancer and small cell lung cancer;
- initiate our planned Phase 1 clinical trial of CRLX301, our second most advanced product candidate;
- continue our research and preclinical development of additional product candidates utilizing our dynamic tumor targeting platform with small and large molecule payloads;
- seek regulatory approvals for any product candidates that successfully complete clinical trials;
- in the future, establish a sales, marketing and distribution infrastructure and scale up external manufacturing capabilities to commercialize any products for which we may obtain regulatory approval;
- maintain, expand and protect our intellectual property portfolio;
- add equipment and physical infrastructure to support our research and development;
- hire additional clinical, quality control and scientific personnel; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts.

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To become and remain profitable, we must succeed in developing and eventually commercializing products that generate significant revenue. We do not expect to generate significant revenue unless and until we are able to obtain marketing approval for, and successfully commercialize, one or more of our product candidates. This will require us to be successful in a range of challenging activities, including completing preclinical testing and clinical trials of our product candidates, discovering additional product candidates, obtaining regulatory approval for these product candidates, manufacturing, marketing and selling any products for which we may obtain regulatory approval, satisfying any post-marketing requirements and obtaining reimbursement for our products from private insurance or government payors. We are only in the preliminary stages of most of these activities and have not yet commenced other of these activities. We may never succeed in these activities and, even if we do, may never generate revenues that are significant enough to achieve profitability.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. If we are required by the United States Food and Drug Administration, or FDA, or the European Medicines Agency, or EMA, to perform studies in addition to those currently expected, or if there are any delays in completing our clinical trials or the development of any of our product candidates, our expenses could increase.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our product offerings or even continue our operations. A decline in the value of our company could cause you to lose all or part of your investment.

In addition, the report of our independent registered public accounting firm with respect to our consolidated financial statements appearing at the end of this prospectus contains an explanatory paragraph stating that our recurring losses from operations, working capital deficiency, accumulated deficit and our need to raise additional financing support prior to June 2014 in order to continue to fund our operations, raise substantial doubt about our ability to continue as a going concern. If we are unable to obtain sufficient capital in this offering, our business, financial condition and results of operations will be materially and adversely affected and we will need to obtain alternative financing or significantly modify our operational plans to continue as a going concern. Further, even if we successfully complete and receive the net proceeds from this offering, given our planned expenditures for the next several years, including, without limitation, expenditures in connection with our clinical trials of CRLX101, our independent registered public accounting firm may conclude, in connection with the preparation of our financial statements for fiscal year 2014 or any other subsequent period that there is substantial doubt regarding our ability to continue as a going concern.

### ***Our limited operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.***

Our operations to date have been limited to organizing and staffing our company, developing and securing our technology, raising capital and undertaking preclinical studies and clinical trials of our product candidates. We have not yet demonstrated the ability to successfully complete development of any product candidates, obtain marketing approvals, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history or a history of successfully developing and commercializing pharmaceutical products.

Assuming we obtain marketing approval for any of our product candidates, we will need to transition from a company with a research and development focus to a company capable of supporting commercial activities. We may encounter unforeseen expenses, difficulties, complications and delays and may not be successful in such a transition.



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***We will need substantial additional funding. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.***

We expect our expenses to increase in connection with our ongoing activities, particularly as we initiate three planned clinical trials of CRLX101, continue to support ISTs of CRLX101, prepare for and initiate a Phase 1 clinical trial of CRLX301 and continue research and development and initiate additional clinical trials of, and seek regulatory approval for, these and other product candidates. In addition, if we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product manufacturing, marketing, sales and distribution. In particular, the costs that may be required for the manufacture of any product candidate that receives marketing approval may be substantial, and manufacturing our nanopharmaceuticals for commercial sale will require expensive and specialized facilities, processes and materials. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

We plan to use the net proceeds from this offering primarily to fund our ongoing research and development efforts. We will be required to expend significant funds in order to advance development of CRLX101, CRLX301 and our other potential product candidates. The net proceeds from this offering and our existing cash and cash equivalents will not be sufficient to fund all of the efforts that we plan to undertake or to fund completion of clinical development of any of our product candidates. Accordingly, we will be required to obtain further funding through public or private equity offerings, debt financings, collaborations or licensing arrangements or other sources. Adequate and additional funding may not be available to us on acceptable terms or at all. If we elect to obtain any additional debt financing, our ability to do so may be limited by covenants we have made under our loan and security agreement with Lighthouse Capital Partners VI, L.P., or Lighthouse Capital, and our pledge to Lighthouse Capital of substantially all of our assets, other than our intellectual property, as collateral. We have also granted Lighthouse Capital a negative pledge with respect to our intellectual property, which, among other things, prohibits us from selling, transferring, assigning, mortgaging, pledging, leasing, granting a security interest in or otherwise encumbering our intellectual property. This negative pledge could further limit our ability to obtain additional debt financing. Our failure to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents as of December 31, 2013, and the proceeds from the convertible notes we issued in 2014, will enable us to fund our operating expenses, debt service and capital expenditure requirements for at least the next \_\_\_\_\_ months. We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. Our future capital requirements will depend on many factors, including:

- the number and development requirements of the product candidates we pursue;
- the scope, progress, timing, results and costs of researching and developing our product candidates, and conducting preclinical and clinical trials;
- the costs, timing and outcome of regulatory review of our product candidates;
- the cost and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution, for any of our product candidates for which we receive marketing approval;
- the revenue, if any, received from commercial sales of any product candidates for which we receive marketing approval;
- our ability to establish and maintain strategic partnerships, licensing or other arrangements and the financial terms of such agreements;

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- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims;
- the extent to which we acquire or in-license other medicines and technology;
- our headcount growth and associated costs; and
- the costs of operating as a public company.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for several years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans.

***Raising additional capital may cause dilution to our stockholders, including purchasers of our common stock in this offering, restrict our operations or require us to relinquish rights to technologies or product candidates.***

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of public or private equity offerings, debt financings and/or license and development agreements with collaboration partners. We do not have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest may be materially diluted, and the terms of such securities could include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include restrictive covenants that limit our ability to take specified actions, such as incurring additional debt, making capital expenditures or declaring dividends. In addition, additional debt financing would result in increased fixed payment obligations.

If we raise funds through collaborations, strategic partnerships or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

***Our existing and any future indebtedness could adversely affect our ability to operate our business.***

As of December 31, 2013, we had \$6.7 million of outstanding borrowings under our loan and security agreement with Lighthouse Capital, which we are required to repay in monthly installments through November 2015. We do not intend to use the net proceeds of this offering to prepay any of these borrowings. We could in the future incur additional indebtedness beyond our borrowings from Lighthouse Capital.

Our outstanding indebtedness combined with our other financial obligations and contractual commitments, including any additional indebtedness beyond our borrowings from Lighthouse Capital, could have significant adverse consequences, including:

- requiring us to dedicate a portion of our cash resources to the payment of interest and principal, and prepayment and repayment fees and penalties, thereby reducing money available to fund working capital, capital expenditures, product development and other general corporate purposes;

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- increasing our vulnerability to adverse changes in general economic, industry and market conditions;
- subjecting us to restrictive covenants that may reduce our ability to take certain corporate actions or obtain further debt or equity financing;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete; and
- placing us at a competitive disadvantage compared to our competitors that have less debt or better debt servicing options.

We intend to satisfy our current and future debt service obligations with our existing cash and cash equivalents. Nevertheless, we may not have sufficient funds, and may be unable to arrange for additional financing, to pay the amounts due under our existing debt. Failure to make payments or comply with other covenants under our existing debt instruments could result in an event of default and acceleration of amounts due. If an event of default occurs and Lighthouse Capital accelerates the amounts due, we may not be able to make accelerated payments, and Lighthouse Capital could seek to enforce security interests in the collateral securing such indebtedness, which includes substantially all of our assets other than our intellectual property.

### **Risks Related to the Discovery, Development and Commercialization of our Product Candidates**

***Our approach to the discovery and development of product candidates based on our dynamic tumor targeting platform is unproven, and we do not know whether we will be able to develop any products of commercial value.***

We are focused on applying our proprietary dynamic tumor targeting platform to develop drugs that address serious unmet medical needs. We believe that our dynamic tumor targeting platform has the potential to create drugs that may have significant utility in several cancer indications, particularly in combination with other cancer drugs and with radiotherapy. While the results of preclinical studies and early-stage clinical trials have suggested that certain of our product candidates may have such utility, we have not yet succeeded and may not succeed in demonstrating efficacy and safety for any of our product candidates in later stage clinical trials or in obtaining marketing approval thereafter. For example, we have not yet advanced a compound beyond Phase 2 clinical development. Moreover, the only compound for which we have completed a Phase 2 clinical trial, CRLX101 for the potential treatment of patients with advanced non-small cell lung cancer, or NSCLC, who had progressed through one or two prior regimens of chemotherapy, failed to meet its primary endpoint of improvement in overall survival.

In addition, we have never had a product candidate receive approval or clearance from the FDA or a non-U.S. regulatory authority. While the FDA has approved nanoparticles such as Doxil® (doxorubicin hydrochloride liposome injection) and Abraxane® (nab-paclitaxel), to our knowledge, the FDA has not yet approved a polymeric nanoparticle such as our nanopharmaceuticals, which are a new way of targeting tumors. The regulatory review process for novel product candidates, such as ours, can be more expensive and take longer than for product candidates based on more well-known or extensively studied technologies due to regulatory authorities' lack of experience with them. As a result, we may be required to conduct additional studies and/or trials beyond those we anticipate and it may take us longer to develop and/or obtain regulatory approval for our product candidates, if any, than we expect.

***We are particularly dependent on the success of our product candidate, CRLX101, and our ability to develop, obtain marketing approval for and successfully commercialize CRLX101. If we are unable to develop, obtain marketing approval for or successfully commercialize CRLX101, either alone or through a collaboration, or experience significant delays in doing so, our business could be materially harmed.***

We currently have no products approved for sale and have invested a significant portion of our efforts and financial resources in the development of CRLX101 for the treatment of patients with inadequately treated forms

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of cancer. Our prospects are substantially dependent on our ability to develop, obtain marketing approval for and successfully commercialize CRLX101. The success of CRLX101 will depend, among other things, on our ability to successfully complete clinical trials of CRLX101. The clinical trial process is uncertain, and failure of one or more clinical trials can occur at any stage of testing. For example, in 2011, we initiated an open-label, randomized Phase 2 clinical trial of CRLX101 as monotherapy in patients with advanced NSCLC who had progressed through one or two prior regimens of chemotherapy. This Phase 2 clinical trial failed to meet its primary endpoint of improvement in overall survival of the CRLX101-treated group as compared to the control arm of the study, which was best supportive care.

In addition to the successful completion of clinical trials, the success of CRLX101 will also depend on several other factors, including the following:

- receipt of marketing approvals from the FDA or other applicable regulatory authorities;
- the performance of our future collaborators for CRLX101, if any;
- the extent of any required post-marketing approval commitments to applicable regulatory authorities;
- establishment of supply arrangements with third party raw materials suppliers and manufacturers;
- establishment of arrangements with third party manufacturers to obtain finished drug products that are appropriately packaged for sale;
- obtaining and maintaining patent, trade secret protection and regulatory exclusivity, both in the United States and internationally;
- protection of our rights in our intellectual property portfolio;
- launch of commercial sales if and when approved;
- a continued acceptable safety profile of CRLX101 following any marketing approval;
- commercial acceptance, if and when approved, by patients, the medical community and third party payors;
- establishing and maintaining pricing sufficient to realize a meaningful return on our investment; and
- competition with other therapies.

If we are unable to develop, receive marketing approval for, or successfully commercialize CRLX101, or experience delays as a result of any of these factors or otherwise, our business could be materially harmed.

***We are currently focusing the clinical development of CRLX101 on combinations with Avastin in relapsed renal cell carcinoma and relapsed ovarian cancer and with Xeloda and radiotherapy in neoadjuvant rectal cancer and may focus on additional combinations in the future. If the FDA revokes its approval of, or if safety, efficacy, manufacturing or supply issues arise with, Avastin, Xeloda, or any other therapeutic that we use in combination with CRLX101 in the future, we may be unable to market CRLX101 or may experience significant regulatory delays or supply shortages, and our business could be materially harmed.***

There are ongoing ISTs evaluating CRLX101 (1) in combination with Avastin in patients with relapsed renal cell carcinoma, (2) in combination with Avastin in patients with relapsed ovarian cancer and (3) in combination with Xeloda (capecitabine) and radiotherapy in patients with neoadjuvant rectal cancer, and we expect to commence company-sponsored trials of CRLX101 in combination with Avastin and Xeloda in radiotherapy, as applicable, in these indications. Avastin is currently approved to treat various cancers, and the combination of Xeloda and radiotherapy is currently the standard of care in neoadjuvant rectal cancer in the United States. However, we did not develop or obtain regulatory approval for, and we do not manufacture or sell, Avastin or Xeloda. We may also seek to develop our product candidates in combination with other therapeutics in the future.

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If the FDA revokes its approval of either Avastin or Xeloda, we will not be able to market CRLX101 in combination with such revoked therapeutic. If safety or efficacy issues arise with Avastin or Xeloda or any other therapeutics that we seek to combine with our product candidates in the future, we may experience significant regulatory delays, and the FDA may require us to redesign or terminate the applicable clinical trials. If Xeloda and radiotherapy is replaced as the standard of care for treatment of neoadjuvant rectal cancer, the results, if any, of the ongoing IST or our planned company-sponsored clinical trial in neoadjuvant rectal cancer may be less meaningful, and the FDA may require us to conduct additional clinical trials of CRLX101 prior to any regulatory approval in this indication. In addition, if manufacturing or other issues result in a supply shortage of Avastin, Xeloda or any other combination therapeutics, we may not be able to complete clinical development of CRLX101 on our current timeline or at all.

Even if CRLX101 were to receive regulatory approval and be commercialized for use in combination with Avastin or Xeloda or another therapeutic, we would continue to be subject to the risk that the FDA could revoke its approval of Avastin or Xeloda, that safety, efficacy, manufacturing or supply issues could arise with one of these therapeutic agents, or that Xeloda and radiotherapy may be replaced as the standard of care in patients with neoadjuvant rectal cancer. This could result in CRLX101 being removed from the market or being less successful commercially.

***If our hypothesis regarding the role of HIF in cancer cells proves incorrect, it may adversely affect our ability to commercialize and market CRLX101.***

We believe that the anti-cancer activity shown by CRLX101 in preclinical tumor models is due in part to its inhibition of HIF, and we have prioritized the clinical development of CRLX101, among other criteria, on HIF-driven tumor types. While HIF-1a has become a target of increasing interest in cancer research and recent research suggests that HIF-1a is a master regulator for many cancer cell survival pathways, the science underlying HIF-1a is based on recent discoveries and not fully understood. Moreover, the exact role of HIF-2a is less well described and understood. If our hypothesis with respect to the role of HIF in cancer cells proves incorrect, CRLX101 may not have the same level of therapeutic benefit as it might otherwise have, and in that case we may be unable to receive marketing approval for, or successfully commercialize, CRLX101, and our business could be materially harmed.

***Clinical drug development involves a lengthy and expensive process with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.***

One of our product candidates is in clinical development, all of our other product candidates are in preclinical development, and the risk of failure of all of our product candidates is high. It is impossible to predict when or if any of our product candidates will prove effective or safe in humans or will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. The clinical development of our product candidates is susceptible to the risk of failure inherent at any stage of drug development, including failure to demonstrate efficacy in a clinical trial or across a broad population of patients, the occurrence of severe or medically or commercially unacceptable adverse events, failure to comply with protocols or applicable regulatory requirements and determination by the FDA or any comparable non-U.S. regulatory authority that a drug product is not approvable. It is possible that even if one or more of our product candidates has a beneficial effect, that effect will not be detected during clinical evaluation as a result of one or more of a variety of factors, including the size, duration, design, measurements, conduct or analysis of our clinical trials. Conversely, as a result of the same factors, our clinical trials may indicate an apparent positive effect of a product candidate that is greater than the actual positive effect, if any. Similarly, in our clinical trials we may fail to detect toxicity or intolerability caused by our product candidates, or mistakenly believe that our product candidates are toxic or not well tolerated when that is not in fact the case.

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The outcome of preclinical studies and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. For example, although a Phase 1/2a clinical trial of CRLX101 supported advancement of CRLX101 as monotherapy into a Phase 2 clinical trials for patients with advanced non-small cell lung cancer who had progressed through one or two prior regimens of chemotherapy, CRLX101 failed to meet its primary endpoint of improvement in overall survival of patients in this indication. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials after achieving positive results in earlier development, and we cannot be certain that we will not face additional setbacks. Moreover, there are currently multiple open-label ISTs of CRLX101 ongoing, including: a Phase 1b/2 open-label IST of CRLX101 in combination with Avastin in patients with relapsed renal cell carcinoma; a two-part Phase 2 open-label IST in patients with relapsed ovarian cancer, consisting of a single-arm trial of CLRX101 as monotherapy and a single-arm combination trial of CRLX101 and Avastin; and a Phase 1b/2 open-label IST of CRLX101 in combination with chemoradiotherapy in patients with neoadjuvant rectal cancer. Interim investigator-reported data from subsets of the total patient populations in certain of these ISTs have been reported, and such results are described elsewhere in this prospectus. These ISTs are still in progress and final results are not yet available. The preliminary results reported from the ISTs have in some cases been observed in only a small number of patients and may not be achieved by other patients on these or other clinical trials. There can be no assurance that company-sponsored trials will confirm the data seen in the ISTs.

The design of a clinical trial can determine whether its results will support approval of a product, and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced or completed. We have limited experience in designing clinical trials and may be unable to design and execute a clinical trial to support marketing approval. For example, we believe that sphincter preservation is a clinically meaningful endpoint for the treatment of neoadjuvant rectal cancer, but there can be no assurance that the FDA will agree. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses. Many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval for the product candidates. Even if we believe that the results of clinical trials for our product candidates warrant marketing approval, the FDA or comparable non-U.S. regulatory authorities may disagree and may not grant marketing approval of our product candidates.

In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the clinical trial protocols and the rate of dropout among clinical trial participants. Any Phase 2, Phase 3 or other clinical trials that we may conduct may not demonstrate the efficacy and safety necessary to obtain regulatory approval to market our product candidates.

***We intend to conduct, and may in the future conduct, clinical trials for certain of our product candidates at sites outside the United States, and the FDA may not accept data from trials conducted in such locations.***

We have conducted, and may in the future choose to conduct, one or more of our clinical trials outside the United States. For example, we intend to conduct the Phase 1 portion of a Phase 1/2a clinical trial of CRLX301 in patients with advanced solid tumor malignancies at two cancer centers in Australia commencing by late 2014.

Although the FDA may accept data from clinical trials conducted outside the United States, acceptance of this data is subject to certain conditions imposed by the FDA. For example, the clinical trial must be well designed and conducted and performed by qualified investigators in accordance with ethical principles. The trial population must also adequately represent the U.S. population, and the data must be applicable to the U.S. population and U.S. medical practice in ways that the FDA deems clinically meaningful. Generally, the patient population for any clinical trials conducted outside of the United States must be representative of the population for whom we intend to seek approval in the United States. In addition, while these clinical trials are subject to the applicable local laws, FDA acceptance of the data will be dependent upon its determination that the trials also

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complied with all applicable U.S. laws and regulations. Since we currently do not have an active IND in the United States for CRLX301, unless we are able to obtain an active IND, we would be unable to conduct clinical trials in the United States. There can be no assurance that the FDA will accept data from trials conducted outside of the United States and no assurance that we will be successful in obtaining an IND for CRLX301. If the FDA does not accept the data from our Phase 1/2a clinical trial of CRLX301 in Australia or any future trial that we determine to conduct outside the United States, it would likely result in the need for additional trials, which would be costly and time-consuming and delay or permanently halt our development of CRLX301 or any future product candidates.

In addition, the conduct of clinical trials outside the United States could have a significant impact on us. Risks inherent in conducting international clinical trials include:

- foreign regulatory requirements that could restrict or limit our ability to conduct our clinical trials;
- administrative burdens of conducting clinical trials under multiple foreign regulatory schema;
- foreign exchange fluctuations; and
- diminished protection of intellectual property in some countries.

***If clinical trials of our product candidates fail to demonstrate safety and efficacy to the satisfaction of the FDA and comparable non-U.S. regulators, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of these product candidates.***

We are not permitted to commercialize, market, promote or sell any product candidate in the United States without obtaining marketing approval from the FDA. Comparable non-U.S. regulatory authorities, such as the EMA, impose similar restrictions. We may never receive such approvals. We must complete extensive preclinical development and clinical trials to demonstrate the safety and efficacy of our product candidates in humans before we will be able to obtain these approvals.

Clinical testing is expensive, difficult to design and implement, can take many years to complete and is inherently uncertain as to outcome. We have not previously submitted a new drug application, or an NDA, to the FDA or similar drug approval filings to comparable non-U.S. regulatory authorities for any of our product candidates.

Any inability to successfully complete preclinical and clinical development could result in additional costs to us and impair our ability to generate revenues from product sales, regulatory and commercialization milestones and royalties. In addition, if (1) we are required to conduct additional clinical trials or other testing of our product candidates beyond the trials and testing that we contemplate, (2) we are unable to successfully complete clinical trials of our product candidates or other testing, (3) the results of these trials or tests are unfavorable, uncertain or are only modestly favorable, such as in our Phase 2 clinical trial of CRLX101 as monotherapy in patients with non-small cell lung cancer, or (4) there are unacceptable safety concerns associated with our product candidates, we, in addition to incurring additional costs, may:

- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as we intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or significant safety warnings, including boxed warnings;
- be subject to additional post-marketing testing or other requirements; or
- be required to remove the product from the market after obtaining marketing approval.

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*If we experience any of a number of possible unforeseen events in connection with clinical trials of our product candidates, potential marketing approval or commercialization of our product candidates could be delayed or prevented.*

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent marketing approval of our product candidates, including:

- clinical trials of our product candidates may produce unfavorable or inconclusive results, such as with our Phase 2 clinical trial of CRLX101 as monotherapy for patients with advanced non-small cell lung cancer who had progressed through one or two prior regimens of chemotherapy;
- we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, patient enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- our third party contractors, including those manufacturing our product candidates or components or ingredients thereof or conducting clinical trials on our behalf, may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner or at all;
- regulators or institutional review boards may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching or fail to reach agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- patients who enroll in a clinical trial may misrepresent their eligibility to do so or may otherwise not comply with the clinical trial protocol, resulting in the need to drop the patients from the clinical trial, increase the needed enrollment size for the clinical trial or extend the clinical trial's duration;
- we may have to suspend or terminate clinical trials of our product candidates for various reasons, including a finding that the participants are being exposed to unacceptable health risks, undesirable side effects or other unexpected characteristics of a product candidate;
- regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or their respective standards of conduct, a finding that the participants are being exposed to unacceptable health risks, undesirable side effects or other unexpected characteristics of the product candidate or findings of undesirable effects caused by a chemically or mechanistically similar drug or drug candidate;
- the FDA or comparable non-U.S. regulatory authorities may disagree with our clinical trial design or our interpretation of data from preclinical studies and clinical trials;
- the FDA or comparable non-U.S. regulatory authorities may fail to approve or subsequently find fault with the manufacturing processes or facilities of third party manufacturers with which we enter into agreements for clinical and commercial supplies;
- the supply or quality of raw materials or manufactured product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient, inadequate or not available at an acceptable cost, or we may experience interruptions in supply; and
- the approval policies or regulations of the FDA or comparable non-U.S. regulatory authorities may significantly change in a manner rendering our clinical data insufficient to obtain marketing approval.

Product development costs for us will increase if we experience delays in testing or pursuing marketing approvals and we may be required to obtain additional funds to complete clinical trials and prepare for possible commercialization of our product candidates. We do not know whether any preclinical tests or clinical trials will



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begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant preclinical or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our product candidates and may harm our business and results of operations. In addition, many of the factors that cause, or lead to, clinical trial delays may ultimately lead to the denial of marketing approval of any of our product candidates.

***If we experience delays or difficulties in the enrollment of patients in clinical trials, we may not achieve our clinical development on our anticipated timeline, or at all, and our receipt of necessary regulatory approvals could be delayed or prevented.***

We may not be able to initiate or continue clinical trials for CRLX101 or any of our other product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in clinical trials. Patient enrollment is a significant factor in the timing of clinical trials, and is affected by many factors, including:

- the size and nature of the patient population;
- the severity of the disease under investigation;
- the proximity of patients to clinical sites;
- the eligibility criteria for the trial;
- the design of the clinical trial;
- efforts to facilitate timely enrollment;
- competing clinical trials; and
- clinicians' and patients' perceptions as to the potential advantages and risks of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating.

Our inability to enroll a sufficient number of patients for our clinical trials could result in significant delays or may require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidates, delay or halt the development of and approval processes for our product candidates and jeopardize our ability to achieve our clinical development timeline and goals, including the dates by which we will commence, complete and receive results from clinical trials. Enrollment delays may also delay or jeopardize our ability to commence sales and generate revenues from our product candidates. Any of the foregoing could cause the value of our company to decline and limit our ability to obtain additional financing, if needed.

***We may request priority review by the FDA for CRLX101 and may also do so for our other product candidates in the future. The FDA may not grant priority review for CRLX101 or any of our other product candidates. Moreover, even if the FDA designated such products for priority review, that designation may not lead to a faster regulatory review or approval process and, in any event, would not assure FDA approval.***

We may be eligible for priority review designation for our product candidates, including CRLX101, if the FDA determines such product candidates offer major advances in treatment or provide a treatment where no adequate therapy exists. A priority review designation means that the goal for the FDA to review an application is six months, rather than the standard review period of ten months. We may request priority review for CRLX101 if and when we submit an NDA for CRLX101. Our current clinical development timeline assumes CRLX101 will receive priority review. The FDA has broad discretion with respect to whether or not to grant priority review status to a product candidate, so even if we believe a particular product candidate is eligible for such designation or status, the FDA may decide not to grant it. Thus, while the FDA has granted priority review

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to other oncology products, CRLX101 may not receive similar designation. Moreover, even if CRLX101 or one of our other product candidates is designated for priority review, such a designation does not necessarily mean a faster regulatory review process or necessarily confer any advantage with respect to approval compared to conventional FDA procedures. Receiving priority review from the FDA does not guarantee approval within the six-month review/approval cycle or thereafter.

***We believe we may in some instances be able to secure approval from the FDA or comparable non-U.S. regulatory authorities to use accelerated development pathways. If unable to obtain such approval, we may be required to conduct additional preclinical studies or clinical trials beyond those that we contemplate, which could increase the expense of obtaining, and delay the receipt of, necessary marketing approvals.***

We anticipate that we may seek an accelerated approval pathway for certain of our product candidates. For example, with respect to our development of CRLX101 for the treatment of neoadjuvant rectal cancer, we currently plan to commence a Phase 2 randomized clinical trial by the end of 2014 and to have pathologic complete response data available by late 2015. Assuming positive pathologic complete response data from this Phase 2 trial, we would expect to commence a Phase 3 trial and file an NDA for accelerated approval based on a surrogate endpoint in this Phase 3 trial. Pathologic complete response would be considered a surrogate endpoint under this approach. Under the accelerated approval provisions in the Federal Food, Drug, and Cosmetic Act, or FDCA, and the FDA's implementing regulations, the FDA may grant accelerated approval to a product designed to treat a serious or life-threatening condition that provides meaningful therapeutic benefit over available therapies upon a determination that the product has an effect on a surrogate endpoint or intermediate clinical endpoint that is reasonably likely to predict clinical benefit. The FDA considers a clinical benefit to be a positive therapeutic effect that is clinically meaningful in the context of a given disease, such as irreversible morbidity or mortality. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. An intermediate clinical endpoint is a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit. The accelerated approval pathway may be used in cases in which the advantage of a new drug over available therapy may not be a direct therapeutic advantage, but is a clinically important improvement from a patient and public health perspective. If granted, accelerated approval is usually contingent on the sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the drug's clinical benefit. If such post-approval studies fail to confirm the drug's clinical benefit, the FDA may withdraw its approval of the drug.

Prior to seeking such accelerated approval, we will seek feedback from the FDA and will otherwise evaluate our ability to seek and receive such accelerated approval. There can be no assurance that the FDA will agree that pathologic complete response is an appropriate surrogate endpoint or appropriate intermediate clinical endpoint for accelerated approval of CRLX101 for neoadjuvant rectal cancer. There can also be no assurance that after our evaluation of the feedback and other factors we will decide to pursue or submit an NDA for accelerated approval or any other form of expedited development, review or approval. Similarly, there can be no assurance that after subsequent FDA feedback that we will continue to pursue or apply for accelerated approval or any other form of expedited development, review or approval, even if we initially decide to do so. Furthermore, if we decide to submit an application for accelerated approval or under another expedited regulatory designation (e.g., breakthrough therapy designation), there can be no assurance that such submission or application will be accepted or that any expedited development, review or approval will be granted on a timely basis, or at all. The FDA or other non-U.S. authorities could also require us conduct further studies prior to considering our application or granting approval of any type. A failure to obtain accelerated approval or any other form of expedited development, review or approval for CRLX101 for neoadjuvant rectal cancer or any of our other product candidates would result in a longer time period to commercialization of such product candidate, could increase the cost of development of such product candidate and could harm our competitive position in the marketplace.

***Serious adverse events or undesirable side effects or other unexpected properties of CRLX101 or any of our other product candidates may be identified during development that could delay or prevent the product candidate's marketing approval.***

Serious adverse events or undesirable side effects caused by, or other unexpected properties of, our product candidates could cause us, an institutional review board or regulatory authorities to interrupt, delay or halt clinical trials of one or more of our product candidates and could result in a more restrictive label or the delay or denial of marketing approval by the FDA or comparable non-U.S. regulatory authorities. If any of our product candidates is associated with serious adverse events or undesirable side effects or has properties that are unexpected, we may need to abandon development or limit development of that product candidate to certain uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. Many compounds that initially showed promise in clinical or earlier stage testing have later been found to cause undesirable or unexpected side effects that prevented further development of the compound.

Both camptothecin, the anti-cancer payload of CRLX101, and docetaxel, the anti-cancer payload of CRLX301, have been associated with toxicities. These toxicities led to discontinuation of the clinical development in the case of camptothecin and have led to dose adjustments, treatment discontinuation and extensive supportive care in the case of docetaxel. While we believe that our dynamic tumor targeting platform has the potential to improve the unfavorable adverse event profiles of both camptothecin and docetaxel, if this hypothesis is wrong and we experience side effects or other safety or toxicity issues in our ongoing clinical trials or in clinical trials we conduct in the future, whether due to the inclusion of camptothecin or docetaxel or another therapeutic as the anti-cancer payload in our nanopharmaceuticals or otherwise, we may not receive approval to market, or achieve the commercial success we anticipate with respect to, any of our product candidates, which could prevent us from ever generating revenues or achieving profitability. In addition, our dynamic tumor targeting platform may have other limitations with respect to targeting tumors and limiting exposure of normal tissue to our nanopharmaceuticals' anti-cancer payload. For example, liver tissue has pore sizes that are generally larger than other normal tissue, and therefore, our nanopharmaceuticals may preferentially concentrate in the liver.

***We may not be successful in our efforts to identify or discover additional potential product candidates.***

A significant portion of the research that we are conducting involves the development of new nanopharmaceuticals based on our dynamic tumor targeting platform. The drug discovery that we are conducting using our dynamic tumor targeting platform may not be successful in creating compounds that have commercial value or therapeutic utility. Our research programs may initially show promise in creating potential product candidates, yet fail to yield viable product candidates for clinical development for a number of reasons, including:

- newly designed nanopharmaceuticals may not demonstrate satisfactory efficacy or other benefits, either alone or in combination with other therapeutics; or
- potential product candidates may, on further study, be shown to have harmful side effects or other characteristics that indicate that they are unlikely to be products that will receive marketing approval and achieve market acceptance.

Our research programs to identify new product candidates will require substantial technical, financial and human resources. We may be unsuccessful in our efforts to identify new potential product candidates. In addition, we may focus our efforts and resources on one or more potential product candidates that ultimately prove to be unsuccessful.

If we are unable to identify suitable additional compounds for preclinical and clinical development, our ability to develop product candidates and obtain product revenues in future periods could be compromised, which could result in significant harm to our financial position and adversely impact our stock price.

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*Even if one of our product candidates receives marketing approval, it may fail to achieve the degree of market acceptance by physicians, patients, third party payors and others in the medical community necessary for commercial success and the market opportunity for the product candidate may be smaller than we estimate.*

We have never commercialized a product. Even if CRLX101 or any of our other product candidates is approved by the appropriate regulatory authorities for marketing and sale, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third party payors and others in the medical community. For example, physicians are often reluctant to switch their patients from existing therapies even when new and potentially more effective or convenient treatments enter the market. Further, patients often acclimate to the therapy that they are currently taking and do not want to switch unless their physicians recommend switching products or they are required to switch therapies due to lack of reimbursement for existing therapies.

Efforts to educate the medical community and third party payors on the benefits of our product candidates may require significant resources and may not be successful. If any of our product candidates is approved but does not achieve an adequate level of market acceptance, we may not generate significant revenues and we may not become profitable. The degree of market acceptance of CRLX101 or any of our other product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and safety of the product;
- the potential advantages of the product compared to alternative treatments;
- the prevalence and severity of any side effects;
- the clinical indications for which the product is approved;
- whether the product is designated under physician treatment guidelines as a first-line therapy or as a second- or third-line therapy;
- limitations or warnings, including distribution or use restrictions, contained in the product's approved labeling;
- our ability to offer the product for sale at competitive prices;
- our ability to establish and maintain pricing sufficient to realize a meaningful return on our investment;
- the product's convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try, and of physicians to prescribe, the product;
- the strength of sales, marketing and distribution support;
- the approval of other new products for the same indications;
- changes in the standard of care for the targeted indications for the product;
- the timing of market introduction of our approved products as well as competitive products and other therapies;
- availability and amount of reimbursement from government payors, managed care plans and other third party payors;
- adverse publicity about the product or favorable publicity about competitive products; and
- potential product liability claims.

The potential market opportunities for our product candidates are difficult to estimate precisely. Our estimates of the potential market opportunities are predicated on many assumptions, including industry knowledge and publications, third party research reports and other surveys. While we believe that our internal assumptions are reasonable, these assumptions involve the exercise of significant judgment on the part of our management, are inherently uncertain and the reasonableness of these assumptions has not been assessed by an independent source. If any of the assumptions proves to be inaccurate, the actual markets for our product candidates could be smaller than our estimates of the potential market opportunities.

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***If any of our product candidates receives marketing approval and we, or others, later discover that the drug is less effective than previously believed or causes undesirable side effects that were not previously identified, our ability to market the drug could be compromised.***

Clinical trials of our product candidates are conducted in carefully defined subsets of patients who have agreed to enter into clinical trials. Consequently, it is possible that our clinical trials may indicate an apparent positive effect of a product candidate that is greater than the actual positive effect, if any, or alternatively fail to identify undesirable side effects. If, following approval of a product candidate, we, or others, discover that the drug is less effective than previously believed or causes undesirable side effects that were not previously identified, any of the following adverse events could occur:

- regulatory authorities may withdraw their approval of the drug or seize the drug;
- we may be required to recall the drug or change the way the drug is administered;
- additional restrictions may be imposed on the marketing of, or the manufacturing processes for, the particular drug;
- we may be subject to fines, injunctions or the imposition of civil or criminal penalties;
- regulatory authorities may require the addition of labeling statements, such as a “black box” warning or a contraindication;
- we may be required to create a Medication Guide outlining the risks of the previously unidentified side effects for distribution to patients;
- we could be sued and held liable for harm caused to patients;
- the drug may become less competitive; and
- our reputation may suffer.

Any of these events could have a material and adverse effect on our operations and business and could adversely impact our stock price.

***If we are unable to establish sales, marketing and distribution capabilities or enter into acceptable sales, marketing and distribution arrangements with third parties, we may not be successful in commercializing any product candidates that we develop, if and when those product candidates are approved.***

We do not have a sales, marketing or distribution infrastructure and have limited experience in the sale, marketing or distribution of pharmaceutical products. To achieve commercial success for any approved product, we must either develop a sales and marketing organization or outsource these functions to third parties. If approved, we expect to commercialize our lead product candidates in the United States directly with a small and highly focused commercialization organization. The development of sales, marketing and distribution capabilities will require substantial resources, will be time-consuming and could delay any product launch. We expect that we will commence the development of these capabilities prior to receiving approval of any of our product candidates. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing and distribution capabilities is delayed or does not occur for any reason, we could have prematurely or unnecessarily incurred these commercialization costs. Such a delay may be costly, and our investment could be lost if we cannot retain or reposition our sales and marketing personnel. In addition, we may not be able to hire or retain a sales force in the United States that is sufficient in size or has adequate expertise in the medical markets that we plan to target. If we are unable to establish or retain a sales force and marketing and distribution capabilities, our operating results may be adversely affected. If a potential partner has development or commercialization expertise that we believe is particularly relevant to one of our products, then we may seek to collaborate with that potential partner even if we believe we could otherwise develop and commercialize the product independently.

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We expect to seek one or more strategic partners for commercialization of our product candidates outside the United States. As a result of entering into arrangements with third parties to perform sales, marketing and distribution services, our product revenues or the profitability of these product revenues may be lower, perhaps substantially lower, than if we were to directly market and sell products in those markets. Furthermore, we may be unsuccessful in entering into the necessary arrangements with third parties or may be unable to do so on terms that are favorable to us. In addition, we may have little or no control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively.

If we do not establish sales and marketing capabilities, either on our own or in collaboration with third parties, we will not be successful in commercializing any of our product candidates that receive marketing approval.

### ***We face substantial competition from other pharmaceutical and biotechnology companies and our operating results may suffer if we fail to compete effectively.***

The development and commercialization of new drug products is highly competitive. We expect that we will face significant competition from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide with respect to CRLX101, CRLX301 and any other of our product candidates that we may seek to develop or commercialize in the future. Specifically, due to the large unmet medical need, global demographics and relatively attractive reimbursement dynamics, the oncology market is fiercely competitive and there are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of product candidates for the treatment of cancer. Our competitors may succeed in developing, acquiring or licensing technologies and drug products that are more effective, have fewer or more tolerable side effects or are less costly than any product candidates that we are currently developing or that we may develop, which could render our product candidates obsolete and noncompetitive.

All of the top ten global pharmaceutical companies and most of the mid-size pharmaceutical companies have a strong research and development and commercial presence in oncology. Smaller companies also focus on oncology, including companies such as ARIAD Pharmaceuticals, Inc., Agios Pharmaceuticals, Inc., BIND Therapeutics, Inc., Clovis Oncology, Inc., Endocyte, Inc., Epizyme, Inc., ImmunoGen, Inc., Incyte Corporation, Infinity Pharmaceuticals, Inc., MacroGenics, Inc., Merrimack Pharmaceuticals, Inc., OncoMed Pharmaceuticals, Inc., Onconova Therapeutics, Inc., Pharmacyclics, Inc., Puma Biotechnology, Inc., Seattle Genetics, Inc. and TESARO, Inc.

Several companies are marketing and developing oncology products. Companies with marketed nanopharmaceutical oncology products include Celgene Corporation (Abraxane indicated for breast cancer, NSCLC and pancreatic cancer) and Spectrum Pharmaceuticals (Marqibo<sup>®</sup> (vincristine sulfate liposome injection) indicated for relapsed Philadelphia chromosome-negative acute lymphoblastic leukemia). Companies with nanopharmaceutical oncology product candidates in clinical development include BIND Therapeutics, Inc. (BIND 014 for NSCLC and metastatic castration-resistant prostate cancer), Celator Pharmaceuticals, Inc. (CPX-351 for acute myeloid leukemia), Celsion Corporation (ThermoDox<sup>®</sup> (lyso-thermosensitive liposomal doxorubicin) for solid tumors), Cytimmune Sciences, Inc. (CYT-6091 for oncology and autoimmune diseases) and Supratek Pharma Inc. (SP1049C for solid tumors). In addition, at least two companies have clinical-stage oncology product candidates that are irinotecan reformulations: Merrimack Pharmaceuticals' liposomal irinotecan (MM-398 for pancreatic and colorectal cancer) and Nektar Therapeutics' etirinotecan pegol (NKTR102 for breast cancer).

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other marketing approval for their products before we are able to obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

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Many of our existing and potential future competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining marketing approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

***If the FDA or comparable non-U.S. regulatory authorities approve generic versions of any of our products that receive marketing approval, or such authorities do not grant our products appropriate periods of data exclusivity before approving generic versions of our products, the sales of our products could be adversely affected.***

Once an NDA is approved, the product covered thereby becomes a “reference listed drug” in the FDA’s publication, “Approved Drug Products with Therapeutic Equivalence Evaluations.” Manufacturers may seek approval of generic versions of reference listed drugs through submission of abbreviated new drug applications, or ANDAs, in the United States. In support of an ANDA, a generic manufacturer need not conduct clinical studies. Rather, the applicant generally must show that its product has the same active ingredient(s), dosage form, strength, route of administration and conditions of use or labeling as the reference listed drug and that the generic version is bioequivalent to the reference listed drug, meaning it is absorbed in the body at the same rate and to the same extent. Generic products may be significantly less costly to bring to market than the reference listed drug and companies that produce generic products are generally able to offer them at lower prices. Thus, following the introduction of a generic drug, a significant percentage of the sales of any branded product or reference listed drug may be typically lost to the generic product.

The FDA may not approve an ANDA for a generic product until any applicable period of non-patent exclusivity for the reference listed drug has expired. The FDCA provides a period of five years of non-patent exclusivity for a new drug containing a new chemical entity. Specifically, in cases in which such exclusivity has been granted, an ANDA may not be filed with the FDA until the expiration of five years unless the submission is accompanied by a Paragraph IV certification that a patent covering the reference listed drug is either invalid or will not be infringed by the generic product, in which case the applicant may submit its application four years following approval of the reference listed drug. While we believe that CRLX101 and certain of our other nanopharmaceuticals would be treated as new chemical entities by the FDA and, therefore, if approved, should be afforded five years of data exclusivity, the FDA may disagree with that conclusion and may approve generic products after a period that is less than five years. Manufacturers may seek to launch these generic products following the expiration of the applicable marketing exclusivity period, even if we still have patent protection for our product.

Competition that our products may face from generic versions of our products could materially and adversely impact our future revenue, profitability and cash flows and substantially limit our ability to obtain a return on the investments we have made in those product candidates.

***CRLX301 is, and any additional product candidate that we may develop in the future may be, a nanopharmaceutical that includes a generically available therapeutic as its anti-cancer payload. If physicians and/or third party payors do not believe our product offers substantial advantages over other therapies incorporating the same generic anti-cancer payload, we may not be able to successfully commercialize our product.***

Although we have intellectual property rights, including composition of matter patents, covering our product candidates, if approved, we expect that our product candidates will compete in the same indications against other nanoparticles and delivery platforms incorporating the same generic therapeutics. In particular, if any of our product candidates is approved and becomes commercially successful, other companies may intensify

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their efforts to develop a competing product that includes the corresponding generic therapeutic. If physicians, rightly or wrongly, do not believe that a product that we develop offers substantial advantages over another nanoparticle or delivery platform incorporating the same generic therapeutic, physicians might not prescribe our product. In addition, third party payors might refuse to provide reimbursement for a product that we develop when another nanoparticle or delivery platform incorporating the same generic therapeutic offers a cheaper alternative therapy in the same indication, or might otherwise encourage use of another nanoparticle or delivery platform incorporating the same generic therapeutic over our product, even if our product possesses favorable pharmaceutical properties.

***Even if we are able to commercialize any product candidate that we develop, the product may become subject to unfavorable pricing regulations, third party payor reimbursement practices or healthcare reform initiatives that could harm our business.***

The commercial success of our product candidates will depend substantially, both domestically and abroad, on the extent to which the costs of our product candidates will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or reimbursed by government health administration authorities, private health coverage insurers and other third party payors. If reimbursement is not available, or is available only to limited levels, we may not be able to successfully commercialize our product candidates. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow us to establish and maintain pricing sufficient to realize a meaningful return on our investment.

There is significant uncertainty related to third party payor coverage and reimbursement of newly approved drugs. Marketing approvals, pricing and reimbursement for new drug products vary widely from country to country. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some non-U.S. markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay commercial launch of the product, possibly for lengthy time periods, which may negatively impact the revenues we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain marketing approval.

Our ability to commercialize CRLX101 or any other product candidate will depend in part on the extent to which coverage and reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Government authorities and third party payors, such as private health insurers and health maintenance organizations, decide which medications they will cover and establish reimbursement levels. The healthcare industry is acutely focused on cost containment, both in the United States and elsewhere. Government authorities and third party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications, which could affect our ability to sell our product candidates profitably. These payors may not view our products, if any, as cost-effective, and coverage and reimbursement may not be available to our customers, or may not be sufficient to allow our products, if any, to be marketed on a competitive basis. Cost-control initiatives could cause us to decrease the price we might establish for products, which could result in lower than anticipated product revenues. If the prices for our products, if any, decrease or if governmental and other third party payors do not provide adequate coverage or reimbursement, our prospects for revenue and profitability will suffer.

There may also be delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the indications for which the drug is approved by the FDA or comparable non-U.S. regulatory authorities. Moreover, eligibility for reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Reimbursement rates may vary, by way of example, according to the use of the drug and the clinical setting in



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which it is used. Reimbursement rates may also be based on reimbursement levels already set for lower cost drugs or may be incorporated into existing payments for other services.

In addition, increasingly, third party payors are requiring higher levels of evidence of the benefits and clinical outcomes of new technologies and are challenging the prices charged. We cannot be sure that coverage will be available for any product candidate that we, or they, commercialize and, if available, that the reimbursement rates will be adequate. Further, the net reimbursement for drug products may be subject to additional reductions if there are changes to laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. An inability to promptly obtain coverage and adequate payment rates from both government-funded and private payors for any our product candidates for which we obtain marketing approval could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

### ***Product liability lawsuits against us could divert our resources, cause us to incur substantial liabilities and limit commercialization of any products that we may develop.***

We face an inherent risk of product liability claims as a result of the clinical testing of our product candidates despite obtaining appropriate informed consents from our clinical trial participants. We will face an even greater risk if we commercially sell any product that we may develop. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our product candidates or products that we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend resulting litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize any products that we may develop.

Although we maintain general liability insurance of \$2.0 million in the aggregate, umbrella insurance in the amount of \$3.0 million in the aggregate and clinical trial liability insurance of \$5.0 million in the aggregate, this insurance may not fully cover potential liabilities that we may incur. The cost of any product liability litigation or other proceeding, even if resolved in our favor, could be substantial. We will need to increase our insurance coverage if and when we begin selling any product candidate that receives marketing approval. In addition, insurance coverage is becoming increasingly expensive. If we are unable to obtain or maintain sufficient insurance coverage at an acceptable cost or to otherwise protect against potential product liability claims, it could prevent or inhibit the development and commercial production and sale of our product candidates, which could adversely affect our business, financial condition, results of operations and prospects.

## **Risks Related to Our Dependence on Third Parties**

***We rely on third parties to conduct ISTs of some of our product candidates. Any failure by a third party to meet its obligations with respect to the clinical development of our drug candidates may delay or impair our ability to obtain regulatory approval for our product candidates.***

We rely on academic institutions to conduct and sponsor clinical trials relating to some of our product candidates. We do not control the design or administration of ISTs, and our reliance on third parties to conduct the ISTs could, depending on the actions of such third parties, jeopardize the validity of the clinical data generated and adversely affect our ability to obtain marketing approval from the FDA or other applicable regulatory authorities.

Such arrangements provide us with certain information rights with respect to the ISTs, including access to and the ability to use and reference the data, including for our own regulatory filings, resulting from the investigator-sponsored trials. However, we do not control the timing and reporting of the data from ISTs, nor do we own the data from the ISTs. For example, patient enrollment has been slower than we anticipated in the randomized Phase 2 IST comparing CRLX101 as monotherapy to Hycamtin® (topotecan) in advanced small cell lung cancer at the University of Chicago. However, because we are not the sponsor of this trial, we do not control the administration of the trial and have limited or no ability to assist or support patient enrollment. Moreover, if we are unable to confirm or replicate the results from the ISTs or if negative results are obtained, we would likely be further delayed or prevented from advancing further clinical development of our drug candidates. Further, if investigators or institutions breach their obligations with respect to the clinical development of our drug candidates, or if the data proves to be inadequate, then our ability to design and conduct any future clinical trials ourselves may be adversely affected.

The FDA or non-U.S. regulatory authorities may disagree with the sufficiency of our right of reference to the preclinical, manufacturing or clinical data generated by ISTs, or our interpretation of preclinical, manufacturing or clinical data from ISTs. If so, the FDA or other non-U.S. regulatory authorities may require us to obtain and submit additional preclinical, manufacturing, or clinical data before we may initiate our planned trials and/or may not accept such additional data as adequate to initiate our planned trials. Moreover, there will be no independent review of the results of the ISTs. Therefore, the investigators may interpret the results of the ISTs more favorably than an independent review would.

Moreover, ISTs of our product candidates may continue even after we commence company-sponsored trials in the same or different indications. To the extent the results of these ISTs are inconsistent with, or different from, the results of our company-sponsored trials, the FDA or a non-U.S. regulatory authority may question the results of the company-sponsored trial, or subject such results to greater scrutiny than it otherwise would. In these circumstances, the FDA or such other non-U.S. regulatory authorities may require us to obtain and submit additional clinical data, which could delay clinical development or marketing approval of the applicable product candidate.

***We rely, and expect to continue to rely, on third parties to conduct our clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials.***

We currently rely on third party clinical research organizations, or CROs, to conduct our clinical trials. We expect to continue to rely on third parties, such as CROs, clinical data management organizations, medical institutions and clinical investigators, to conduct our clinical trials. Our agreements with these third parties generally allow the third party to terminate the agreement at any time. If we are required to enter into alternative arrangements because of any such termination the introduction of our product candidates to market could be delayed.

Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities. For example, we design our clinical trials and will remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational

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plan and protocols for the trial. Moreover, the FDA requires us to comply with standards, commonly referred to as good clinical practices, or GCPs, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Our reliance on third parties that we do not control does not relieve us of these responsibilities and requirements. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, marketing approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates.

We also expect to rely on other third parties to store and distribute drug supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or marketing approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenue.

***We may seek to enter into collaborations with third parties for the development and commercialization of our product candidates. If we fail to enter into such collaborations, or such collaborations are not successful, we may not be able to capitalize on the market potential of our product candidates.***

We may seek third-party collaborators for development and commercialization of our product candidates. Our likely collaborators for any marketing, distribution, development, licensing or broader collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. We are not currently party to any such arrangement. However, if we do enter into any such arrangements with any third parties in the future, we will likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our product candidates would pose the following risks to us:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- collaborators with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;

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- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- disputes may arise between the collaborators and us that result in the delay or termination of the research, development or commercialization of our products or product candidates or that result in costly litigation or arbitration that diverts management attention and resources; and
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates.

Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If a collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program could be delayed, diminished or terminated.

### ***If we are not able to establish collaborations, we may have to alter our development and commercialization plans.***

Our drug development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses. For some of our product candidates, we may decide to collaborate with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. We may also be restricted under future license agreements from entering into agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of a product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

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***We contract with third parties for the manufacture of our product candidates for preclinical and clinical testing and expect to continue to do so for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.***

We do not currently own or operate manufacturing facilities for the production of clinical quantities of CRLX101 or CRLX301 and have limited personnel with manufacturing experience. We currently rely on and expect to continue to rely on third party contract manufacturers to manufacture supplies of our product candidates for preclinical and clinical testing, as well as for commercial manufacture if any of our product candidates receive marketing approval.

CRLX101 and CRLX301 must be manufactured through complex, multi-step synthesis processes that are time-consuming and involve special conditions at certain stages. Drug substance manufacture requires high potency containment, and drug product manufacture requires high potency containment under aseptic conditions (i.e., sterile manufacture). In 2013, we experienced a batch contamination issue with the manufacture of a batch of CRLX301 drug substance, and the process of obtaining a new batch has taken several months and is not yet complete. Any additional performance failures on the part of our existing or future manufacturers could delay clinical development or marketing approval of our product candidates. Although we currently have backup suppliers for several stages of the manufacturing process, we rely on one supplier for each stage of this process. If our current contract manufacturers cannot perform as agreed, or become unavailable to us for any reason, we may be required to replace such manufacturers. Our agreements with our third party manufacturers can be terminated by us or such manufacturers on short notice. If any of our existing manufacturers should become unavailable to us for any reason, we may incur additional cost or delay in identifying or qualifying replacements. In addition, while we believe that our existing supplier of drug substance or an alternative supplier would be capable of continuing to produce drug substance in commercial quantities, we will need to identify a third-party manufacturer capable of providing commercial quantities of drug product. If we are unable to arrange for such a third-party manufacturing source, or fail to do so on commercially reasonable terms, we may not be able to successfully produce and market CRLX101 or any other product candidate or may be delayed in doing so.

Even if we are able to establish such arrangements with third party manufacturers, reliance on third party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Third party manufacturers may not be able to comply with current good manufacturing practices, or cGMP, regulations or similar regulatory requirements outside the United States. Our failure, or the failure of our third party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products.

CRLX101, CRLX301 and any other products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us.

In addition, we generally rely on our manufacturers to purchase from third-party suppliers the materials necessary to produce our product candidates for our clinical studies. There are a small number of suppliers for certain capital equipment and raw materials that are used in the manufacture of our drugs. Such suppliers may

not sell these raw materials to our manufacturers at the times we need them or on commercially reasonable terms. We do not have any control over the process or timing of the acquisition of these raw materials by our manufacturers. Moreover, we currently do not have any agreements for the commercial production of these raw materials. Although we generally do not begin a clinical trial unless we believe we have a sufficient supply of a product candidate to complete the clinical trial, any significant delay in the supply of a product candidate or the raw material components thereof for an ongoing clinical trial due to the need to replace a third-party manufacturer could considerably delay completion of our clinical studies, product testing and potential regulatory approval of our product candidates. If our manufacturers or we are unable to purchase these raw materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would impair our ability to generate revenues from the sale of our product candidates.

Our current and anticipated future dependence upon others for the manufacture of our product candidates may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

### **Risks Related to our Intellectual Property**

***If we are unable to obtain and maintain patent protection for our technology and products or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be impaired.***

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our proprietary technology and products. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel technologies and product candidates.

The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we do not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the laws of non-U.S. countries may not protect our rights to the same extent as the laws of the United States. For example, European patent law restricts the patentability of methods of treatment of the human body more than United States law does. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, and in some cases not at all. Therefore, we cannot know with certainty whether we were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not issue as patents that protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection.

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Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our owned or licensed issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to United States patent law. The Leahy-Smith Act includes provisions that affect the way patent applications are prosecuted and affect patent litigation. The United States Patent and Trademark Office, or PTO, recently developed new regulations and procedures to govern administration of the Leahy-Smith Act. However, many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our owned or licensed patent applications and the enforcement or defense of our owned or licensed issued patents, all of which could have a material adverse effect on our business and financial condition.

Moreover, we may be subject to third party preissuance submissions of prior art to the USPTO, or become involved in opposition, derivation, reexamination, *inter partes* review, post-grant review or interference proceedings challenging our owned or licensed patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Even if our owned and licensed patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us, or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and licensed patents may be challenged in courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or freedom to operate, or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

***We may become involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time consuming and unsuccessful.***

Competitors may infringe our owned or licensed patents or other intellectual property. To counter infringement or unauthorized use, we may be required to file or participate in infringement claims, which can be expensive and time consuming. Any claims we or our licensors assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents. In addition, in a patent infringement proceeding, a court may decide that a patent of ours or our licensor is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our owned or licensed patents at risk of being invalidated or interpreted narrowly.

***CRLX101 and certain aspects of our platform technology are protected by patents exclusively licensed from other companies or institutions. If the licensors terminate the licenses or fail to maintain or enforce the underlying patents, our competitive position and our market share in the markets for any of our approved products will be harmed.***

We are a party to several license agreements and certain aspects of our business depend on patents and/or patent applications owned by other companies or institutions. In particular, we hold exclusive licenses from Calando Pharmaceuticals, Inc., or Calando, and California Institute of Technology, or Caltech and have been assigned certain patents from Calando for CRLX101, CRLX301 and cyclodextrine polymer-based, or CDP-based, product candidates. We also hold an exclusive license from the State University of New York, or SUNY, related to taxane-containing nanopharmaceuticals, such as CRLX301. In addition, we hold an exclusive license from the Massachusetts Institute of Technology, or MIT, for polymeric nanopharmaceutical-based, or PNP-based, product candidates. We are likely to enter into additional license agreements as part of the development of our business in the future. Our licensors may not successfully prosecute certain patent applications under which we are licensed and on which our business depends. Even if patents issue from these applications, our licensors may fail to maintain these patents, may decide not to pursue litigation against third party infringers, may fail to prove infringement, or may fail to defend against counterclaims of patent invalidity or unenforceability. In addition, in spite of our best efforts, our licensors might conclude that we have materially breached our license agreements and might therefore terminate the license agreements, thereby removing our ability to obtain regulatory approval and to market products covered by these license agreements. If these licenses are terminated, or if the underlying patents fail to provide the intended market exclusivity, competitors would have the freedom to seek regulatory approval of, and to market, products similar or identical to ours. Moreover, if these licenses are terminated, our former licensors may be able to prevent us from utilizing the technology covered by the licensed patents and patent applications. For example, under our agreements with Calando, which relate to CRLX101 and our CDP platform, if we fail to meet our payment obligations and do not adequately cure such failure, or if we terminate one or both of these agreements, other than for specified safety concerns, we are required to grant Calando an exclusive (even as to Cerulean), royalty-free license under the patent rights assigned pursuant to such terminated agreement and to assign the related IND to Calando. Moreover, if we fail to meet our diligence obligations under one or both of our agreements with Calando, Calando may convert the license to a non-exclusive license, and we will be required to grant Calando a non-exclusive license under the patent rights assigned to us pursuant to such terminated agreement. This could have a material adverse effect on our competitive business position and our business prospects.

***If we fail to comply with our obligations in our intellectual property licenses with third parties, we could lose rights that are important to our business.***

We are party to four license agreements that impose, and we may enter into additional license agreements that may impose, various diligence, milestone payment, royalty and other obligations on us. Under our existing licensing agreements, we are obligated to pay royalties on the net sales of product candidates or related technologies to the extent they are covered by the agreement. We also have diligence and development obligations under those agreements. If we fail to comply with our obligations under current or future license agreements, our counterparties may have the right to terminate these agreements, in which event we might not be able to develop, manufacture or market any product that is covered by the agreement or face other penalties under the agreement. Such an occurrence could materially adversely affect the value of the product candidate being developed under any such agreement. Termination of these agreements or reduction or elimination of our rights under these agreements may result in our having to negotiate new or reinstated agreements with less favorable terms, or cause us to lose our rights under these agreements, including our rights to important intellectual property or technology.



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***Some intellectual property which we have licensed may have been discovered through government funded programs and thus may be subject to federal regulations such as “march-in” rights, certain reporting requirements, and a preference for United States industry. Compliance with such regulations may limit our exclusive rights, subject us to expenditure of resources with respect to reporting requirements, and limit our ability to contract with non-U.S. manufacturers.***

Some of the intellectual property rights we have licensed may have been generated through the use of United States government funding and may therefore be subject to certain federal regulations. For example, some of the intellectual property rights licensed to us under the MIT agreement, and which are relevant to our PNP-based nanopharmaceuticals, may have been generated using United States government funds. In addition, some of the intellectual property rights licensed to us under the SUNY agreement and which are relevant to taxane containing nanopharmaceuticals such as CRLX301 may have been generated using United States government funds. As a result, the United States government may have certain rights to intellectual property embodied in our current or future PNP-based products or in CRLX301 pursuant to the Bayh-Dole Act of 1980. These United States government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the United States government has the right to require us to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third party if it determines that: (i) adequate steps have not been taken to commercialize the invention; (ii) government action is necessary to meet public health or safety needs; or (iii) government action is necessary to meet requirements for public use under federal regulations (also referred to as “march-in rights”). The United States government also has the right to take title to these inventions if we fail to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits. In addition, the United States government may acquire title to these inventions in any country in which a patent application is not filed within specified time limits. Intellectual property generated under a government funded program is also subject to certain reporting requirements, compliance with which may require us to expend substantial resources. In addition, the United States government requires that any products embodying the subject invention or produced through the use of the subject invention be manufactured substantially in the United States. The manufacturing preference requirement can be waived if the owner of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible. This preference for United States manufacturers may limit our ability to contract with non-U.S. product manufacturers for products covered by such intellectual property.

We currently do not plan to apply for additional United States government funding, but if we do, and we discover compounds or drug candidates as a result of such funding, intellectual property rights to such discoveries may be subject to the applicable provisions of the Bayh-Dole Act.

***Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.***

Our commercial success depends upon our ability to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. We may become party to, or be threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference or derivation proceedings before the USPTO. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future.

If we are found to infringe a third party’s intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our products and technology. However, we

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may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

***We may be subject to claims by third parties asserting that we or our employees have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.***

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee's former employer. Litigation may be necessary to defend against these claims.

In addition, while it is our policy to require our employees and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in timely obtaining such an agreement with each party who in fact develops intellectual property that we regard as our own. Even if timely obtained, such agreements may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

If we fail in prosecuting or defending any such claims, we may lose valuable intellectual property rights or personnel, in addition to paying monetary damages. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to management.

***Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.***

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace.

***If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.***

In addition to seeking patents for some of our technology and product candidates, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators,

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outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. Even if we are successful in prosecuting such claims, any remedy awarded may be insufficient to fully compensate us for the improper disclosure or misappropriation. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

### **Risks Related to Regulatory Approval of Our Product Candidates and Other Legal Compliance Matters**

***Even if we complete the necessary clinical trials, the marketing approval process is expensive, time consuming and uncertain and may prevent us from obtaining approvals for the commercialization of some or all of our product candidates. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue will be materially impaired.***

Our product candidates and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by the EMA and similar regulatory authorities outside the United States. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. Our product candidates are in the early stages of development and are subject to the risks of failure inherent in drug development. We have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. We have only limited experience in conducting and managing the clinical trials, and in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third party CROs to assist us in this process. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. Our product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval or prevent or limit commercial use. New cancer drugs frequently are indicated only for patient populations that have not responded to an existing therapy or have relapsed. If any of our product candidates receives marketing approval, the accompanying label may limit the approved use of our drug in this way, which could limit sales of the product.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

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If we experience delays in obtaining approval or if we fail to obtain approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenues will be materially impaired.

### ***Failure to obtain marketing approval in international jurisdictions would prevent our product candidates from being marketed abroad.***

In order to market and sell our products in the European Union and many other jurisdictions, we must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be approved for sale in that country. We may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our products in any market.

### ***Even if we obtain marketing approval for our product candidates, the terms of approvals and ongoing regulation of our products may limit how we manufacture and market our products, which could materially impair our ability to generate revenue.***

Once marketing approval has been granted, an approved product and its manufacturer and marketer are subject to ongoing review and extensive regulation. We must therefore comply with requirements concerning advertising and promotion for any of our product candidates for which we obtain marketing approval. Promotional communications with respect to prescription drugs are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved labeling. Thus, we will not be able to promote any products we develop for indications or uses for which they are not approved.

In addition, manufacturers of approved products and those manufacturers' facilities are required to comply with extensive FDA requirements, including ensuring that quality control and manufacturing procedures conform to cGMPs, which include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation and reporting requirements. We and our contract manufacturers could be subject to periodic unannounced inspections by the FDA to monitor and ensure compliance with cGMPs.

Accordingly, assuming we receive marketing approval for one or more of our product candidates, we and our contract manufacturers will continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production, product surveillance and quality control.

If we are not able to comply with post-approval regulatory requirements, we could have the marketing approvals for our products withdrawn by regulatory authorities and our ability to market any future products could be limited, which could adversely affect our ability to achieve or sustain profitability. Further, the cost of compliance with post-approval regulations may have a negative effect on our operating results and financial condition.

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***Any product candidate for which we obtain marketing approval could be subject to post-marketing restrictions or withdrawal from the market and we may be subject to substantial penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, when and if any of them are approved.***

Any product candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for such product, will be subject to continual requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping. Even if marketing approval of a product candidate is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, including the requirement to implement a risk evaluation and mitigation strategy. New cancer drugs frequently are indicated only for patient populations that have not responded to an existing therapy or have relapsed. If any of our product candidates receives marketing approval, the accompanying label may limit the approved use of our drug in this way, which could limit sales of the product.

The FDA may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product. The FDA and other agencies, including the Department of Justice, closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use and if we do not market our products for their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the FDCA and other statutes, including the False Claims Act, relating to the promotion and advertising of prescription drugs may lead to investigations alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

In addition, later discovery of previously unknown adverse events or other problems with our products, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- litigation involving patients taking our products;
- restrictions on such products, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- damage to relationships with any potential collaborators;
- unfavorable press coverage and damage to our reputation;
- refusal to permit the import or export of our products;

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- product seizure; or
- injunctions or the imposition of civil or criminal penalties.

Non-compliance by us or any future collaborator with regulatory requirements regarding safety monitoring or pharmacovigilance, and with requirements related to the development of products for the pediatric population, can also result in significant financial penalties. Similarly, failure to comply with regulatory requirements regarding the protection of personal information can also lead to significant penalties and sanctions.

***Our relationships with customers and third party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.***

Healthcare providers, physicians and third party payors will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our future arrangements with third party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute any products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid;
- the federal False Claims Act imposes criminal and civil penalties, including civil whistleblower or *qui tam* actions, against individuals or entities for, among other things, knowingly presenting, or causing to be presented false or fraudulent claims for payment by a federal government program, or making a false statement or record material to payment of a false claim or avoiding, decreasing or concealing an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;
- federal law requires applicable manufacturers of covered drugs to report payments and other transfers of value to physicians and teaching hospitals;
- the federal transparency requirements under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively the PPACA, requires manufacturers of drugs, devices, biologics and medical supplies to report to the Department of Health and Human Services information related to physician payments and other transfers of value and physician ownership and investment interests; and

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- analogous state laws and regulations such as state anti-kickback and false claims laws and analogous non-U.S. fraud and abuse laws and regulations, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, and some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures.

Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures. State and non-U.S. laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion of products from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other healthcare providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

### ***Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain.***

In the United States and some non-U.S. jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product candidates for which we obtain marketing approval. Third-party payors are increasingly challenging the prices charged for medical products and services and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. If these third-party payors do not consider our products, if approved, to be cost-effective compared to other available therapies, they may not cover our product after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to realize a meaningful return on our investment. The United States government, state legislatures and non-U.S. governments have shown significant interest in implementing cost containment programs to limit the growth of government-paid health care costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. Adoption of such controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for our products, if approved.

As a result, the marketability of our products, if approved, could suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. In addition, an increasing emphasis on managed care in the United States has increased and will continue to increase the pressure on drug pricing. Coverage policies, third-party reimbursement rates and drug pricing regulation may change at any time. Even if favorable coverage and reimbursement status is attained for one or more of our products that receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

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In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. Cost reduction initiatives and other provisions of this legislation could decrease the coverage and price that we receive for any approved products. While the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors.

More recently, in March 2010, President Obama signed into law the PPACA, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for the healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

Among the provisions of the PPACA of importance to our potential product candidates are the following:

- an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices;
- extension of manufacturers' Medicaid rebate liability;
- expansion of eligibility criteria for Medicaid programs;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements to report financial arrangements with physicians and teaching hospitals;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding.

We expect that the PPACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products.



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Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the United States Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

### ***Governments outside the United States tend to impose strict price controls, which may adversely affect our revenues from the sales of our products, if any.***

In some countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

### ***Our employees may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements, which could cause significant liability for us and harm our reputation.***

We are exposed to the risk of employee fraud or other misconduct, including intentional failures to comply with FDA regulations or similar regulations of comparable non-U.S. regulatory authorities, provide accurate information to the FDA or comparable non-U.S. regulatory authorities, comply with manufacturing standards we have established, comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable non-U.S. regulatory authorities, report financial information or data accurately or disclose unauthorized activities to us. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws, standards or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant fines or other sanctions.

### ***If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could harm our business.***

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

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Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

### **Risks Related to Employee Matters and Managing Growth**

***Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.***

We are highly dependent on the scientific, business development and clinical expertise of Dr. Oliver Fetzer, our chief executive officer, Mr. Christopher Guiffre, our chief business officer, and Dr. Edward Garmey, our chief medical officer, as well as other principal members of our management, scientific and clinical teams. The loss of this expertise could impede the achievement of our goals. Any of our employees may terminate their employment with us at any time. We do not maintain "key person" insurance for any of our executives or other employees.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be critical to our success. The loss of the services of our executive officers or other key employees could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize products. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

***We expect to expand our development and regulatory capabilities and potentially implement sales, marketing and distribution capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.***

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of drug development, regulatory affairs and, if any of our product candidates receives marketing approval, sales, marketing and distribution. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

## Risks Related to This Offering and Ownership of our Common Stock

*We do not know whether a market will develop for our common stock or what the market price of our common stock will be and as a result it may be difficult for you to sell your shares of our common stock.*

Before this offering, there was no public trading market for our common stock. If a market for our common stock does not develop or is not sustained, it may be difficult for you to sell your shares of common stock at an attractive price or at all. We cannot predict the prices at which our common stock will trade. It is possible that in one or more future periods our results of operations may be below the expectations of public market analysts and investors and, as a result of these and other factors, the price of our common stock may fall.

*The market price of our common stock may be volatile, which could result in substantial losses for investors purchasing shares in this offering.*

The initial public offering price for our common stock will be determined through negotiations with the underwriters. This initial public offering price may vary from the market price of our common stock after the offering. Some of the factors that may cause the market price of our common stock to fluctuate include:

- actual or anticipated results from and any delays in our clinical trials, including the ongoing ISTs of CRLX101, our planned Phase 2 and Phase 3 clinical trials of CRLX101 or our planned Phase 1 clinical trial of CRLX301, as well as results of regulatory reviews relating to the approval of our product candidates;
- the results of our efforts to discover, develop, acquire or in-license additional product candidates or products;
- failure or discontinuation of any of our development programs;
- the level of expenses related to any of our product candidates or clinical development programs;
- commencement or termination of any collaboration or licensing arrangement;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures and capital commitments;
- additions or departures of key scientific or management personnel;
- variations in our financial results or those of companies that are perceived to be similar to us;
- new products, product candidates or new uses for existing products introduced or announced by our competitors, and the timing of these introductions or announcements;
- results of clinical trials of product candidates of our competitors;
- general economic and market conditions and other factors that may be unrelated to our operating performance or the operating performance of our competitors, including changes in market valuations of similar companies;
- regulatory or legal developments in the United States and other countries;
- changes in the structure of healthcare payment systems;
- conditions or trends in the biotechnology and biopharmaceutical industries;
- actual or anticipated changes in earnings estimates, development timelines or recommendations by securities analysts;
- announcement or expectation of additional financing efforts;

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- sales of common stock by us or our stockholders in the future, as well as the overall trading volume of our common stock; and
- the other factors described in this “Risk Factors” section.

In addition, the stock market in general and the market for biotechnology and biopharmaceutical companies in particular have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in companies’ stock prices, securities class-action litigation has often been instituted against such companies. Such litigation, if instituted against us, could result in substantial costs and diversion of management’s attention and resources, which could materially and adversely affect our business and financial condition.

### ***Our principal stockholders and management own a significant percentage of our stock and will be able to exercise significant influence over matters subject to stockholder approval.***

Following the closing of this offering, our executive officers, directors and principal stockholders, together with their respective affiliates, will beneficially own approximately % of our common stock. Accordingly, these stockholders will be able to exert a significant degree of influence over our management and affairs and over matters requiring stockholder approval, including the election of our board of directors and approval of significant corporate transactions. This concentration of ownership could have the effect of delaying or preventing a change in control of our company or otherwise discouraging a potential acquirer from attempting to obtain control of us, which in turn could have a material and adverse effect on the fair market value of our common stock.

### ***A significant portion of our total outstanding shares may be sold into the public market in the near future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.***

Sales of a substantial number of shares of our common stock in the public market, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding shares of common stock based on the number of shares outstanding as of January 31, 2014. This includes the shares that we are selling in this offering, which may be resold in the public market immediately without restriction, unless purchased by our affiliates or existing stockholders. The remaining shares are currently restricted as a result of securities laws or lock-up agreements but will become eligible to be sold at various times after the offering. Moreover, after this offering, holders of an aggregate of 102,324,881 shares of our common stock will have rights, subject to specified conditions, to require us to file registration statements covering their shares or, along with holders of an additional 8,488,446 shares of our common stock, to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the “Underwriting” section of this prospectus.

### ***You will incur immediate and substantial dilution as a result of this offering.***

If you purchase common stock in this offering, you will incur immediate and substantial dilution of \$ per share, representing the difference between the assumed initial public offering price of \$ per share and our pro forma net tangible book value per share after giving effect to this offering and the automatic conversion of all outstanding shares of our preferred stock upon the closing of this offering. Moreover, we issued warrants and options in the past to acquire common stock at prices significantly below the assumed initial public offering

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price. As of January 31, 2014, there were 1,866,816 shares of common stock subject to outstanding warrants with a weighted-average exercise price of \$0.79 per share and 17,687,568 shares of common stock subject to outstanding options with a weighted-average exercise price of \$0.33 per share. To the extent that these outstanding warrants or options are ultimately exercised, you will incur further dilution.

***We are an “emerging growth company,” and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.***

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and may remain an emerging growth company for up to five years. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- providing only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of reduced reporting burdens in this prospectus. In particular, in this prospectus, we have provided only two years of audited financial statements and have not included all of the executive compensation related information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

In addition, the JOBS Act also provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

***We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.***

As a public company, and particularly after we are no longer an “emerging growth company,” we will incur significant legal, accounting and other expenses that we did not incur as a private company. We expect that we will need to hire additional accounting, finance and other personnel in connection with our becoming, and our efforts to comply with the requirements of being, a public company, and our management and other personnel will need to devote a substantial amount of time towards maintaining compliance with these requirements. In addition, the Sarbanes-Oxley Act of 2002 and rules subsequently implemented by the Securities and Exchange Commission and

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NASDAQ have imposed various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance. Overall, we estimate that our incremental costs resulting from operating as a public company may be between \$2.0 million and \$4.0 million per year.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, we will be required to furnish a report by our management on our internal control over financial reporting, including an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that neither we nor our independent registered public accounting firm will be able to conclude within the prescribed timeframe that our internal control over financial reporting is effective as required by Section 404. This could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

***We do not expect to pay any dividends for the foreseeable future. Investors in this offering may never obtain a return on their investment.***

You should not rely on an investment in our common stock to provide dividend income. We do not anticipate that we will pay any dividends to holders of our common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our existing operations. Furthermore, our loan and security agreement with Lighthouse Capital prohibits us from paying any dividends without the prior written consent of Lighthouse Capital. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any return on their investment. As a result, investors seeking cash dividends should not purchase our common stock.

***We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.***

We cannot specify with certainty the particular uses of the net proceeds we will receive from this offering. Our management will have broad discretion in the application of the net proceeds, including for any of the purposes described in “Use of Proceeds.” Accordingly, you will have to rely upon the judgment of our management with respect to the use of the proceeds, with only limited information concerning management’s specific intentions. Our management may spend a portion or all of the net proceeds from this offering in ways that our stockholders may not desire or that may not yield a favorable return. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

***Provisions in our certificate of incorporation, our by-laws or Delaware law might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the trading price of our common stock.***

Provisions of our certificate of incorporation, our bylaws or Delaware law may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions

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in which you might otherwise receive a premium for your shares of our common stock. These provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions include:

- limitations on the removal of directors;
- a classified board of directors so that not all members of our board are elected at one time;
- advance notice requirements for stockholder proposals and nominations;
- the inability of stockholders to act by written consent or to call special meetings;
- the ability of our board of directors to make, alter or repeal our by-laws; and
- the ability of our board of directors to designate the terms of and issue new series of preferred stock without stockholder approval, which could be used to institute a rights plan, or a poison pill, that would work to dilute the stock ownership of a potential hostile acquirer, likely preventing acquisitions that have not been approved by our board of directors.

In addition, we are governed by Section 203 of the Delaware General Corporation Law, which prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

The existence of the foregoing provisions and anti-takeover measures could limit the price that investors might be willing to pay in the future for shares of our common stock. They could also deter potential acquirers of our company, thereby reducing the likelihood that you could receive a premium for your common stock in an acquisition.

***If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our stock, the price of our stock could decline.***

The trading market for our common stock will rely in part on the research and reports that industry or financial analysts publish about us or our business. We do not currently have and may never obtain research coverage by industry or financial analysts. If no or few analysts commence coverage of us, the trading price of our stock would likely decrease. Even if we do obtain analyst coverage, if one or more of the analysts covering our business downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “anticipate”, “believe”, “estimate”, “expect”, “intend”, “may”, “plan”, “predict”, “project”, “target”, “potential”, “will”, “would”, “could”, “should”, “continue”, “contemplate”, or the negative of these terms or other similar expressions. The forward-looking statements in this prospectus are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations.

The forward-looking statements in this prospectus include, among other things, statements about:

- our plans to advance the development of, and commercialize, CRLX101, CRLX301 and our other product candidates, including in combination with other drugs and therapies;
- our ongoing and planned preclinical studies and clinical trials;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates;
- the rate and degree of market acceptance and clinical utility of our products;
- our plans to leverage our platform to discover and develop additional product candidates;
- our plans with respect to possible future collaborations and partnering arrangements;
- our ability to identify and develop additional product candidates with significant commercial potential;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our intellectual property position and strategy;
- our expectations relating to the use of proceeds from this offering;
- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;
- developments relating to our competitors and our industry; and
- the impact of government laws and regulations.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly in the “Risk Factors” section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make or enter into.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements.

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third party research, surveys and studies generally indicate that the information contained therein has been obtained from sources believed to be reliable, although they do not guarantee the accuracy and completeness of such information. While we believe these industry publications and third party research, surveys and studies are reliable, we have not independently verified such data.



## USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of the common stock that we are offering will be approximately \$       million, assuming an initial public offering price of \$       per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their over-allotment option in full, we estimate that our net proceeds will be approximately \$       million.

A \$1.00 increase (decrease) in the assumed initial public offering price of \$       per share would increase (decrease) the net proceeds to us from this offering by approximately \$       million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

As of December 31, 2013, we had cash and cash equivalents of approximately \$5.5 million. We currently estimate that we will use the net proceeds from this offering, together with our existing cash and cash equivalents, as follows:

- approximately \$       to fund clinical development of CRLX101;
- approximately \$       to fund research and development of CRLX301 and other product candidates; and
- the remainder for working capital and other general corporate purposes.

The expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our clinical development, the status of and results from clinical trials, any collaborations that we may enter into with third parties for our product candidates and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Based on our planned use of the net proceeds from this offering and our existing cash and cash equivalents described above, we estimate that such funds will be sufficient to enable us to fund our planned randomized Phase 2 clinical trial of CRLX101 in combination with Avastin in relapsed renal cell carcinoma, to fund our planned randomized Phase 2 clinical trial of CRLX101 in combination with chemoradiotherapy in neoadjuvant rectal cancer, to support the ongoing CRLX101 investigator-sponsored trials, to fund our planned Phase 1 clinical trial of CRLX301 and to fund our operating expenses, debt service and capital expenditure requirements for at least the next       months. We do not expect that the net proceeds from this offering and our existing cash and cash equivalents will be sufficient to enable us to fund the completion of clinical development of any of our product candidates.

Pending use of the proceeds as described above, we intend to invest the proceeds in a variety of capital preservation instruments, including short-term, interest-bearing, investment-grade securities and U.S. government securities.

## DIVIDEND POLICY

We have not declared or paid any cash dividends on our capital stock since our incorporation. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. We do not intend to pay any cash dividends to the holders of our common stock in the foreseeable future. Our ability to pay dividends on our common stock is prohibited by the covenants of our loan and security agreement with Lighthouse Capital Partners VI, L.P. and may be further restricted by the terms of any future indebtedness we may incur.

## CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of December 31, 2013, on:

- an actual basis;
- a pro forma basis giving effect to (i) the automatic conversion of all outstanding shares of our preferred stock into 99,028,475 shares of common stock upon the closing of this offering, (ii) the issuance of shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2013 convertible notes upon the closing of this offering, assuming an initial public offering price per share of \$ , which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on , 2014, (iii) the issuance of shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, upon the closing of this offering, assuming an initial public offering price per share of \$ , which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on , 2014 and (iv) the conversion of our outstanding warrants to purchase 1,857,226 shares of our preferred stock to warrants to purchase 1,866,816 shares of common stock upon the closing of this offering; and
- a pro forma as adjusted basis to give further effect to our issuance and sale of shares of common stock in this offering at an assumed initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us and the filing and effectiveness of a restated certificate of incorporation upon the closing of this offering.

You should read the following table in conjunction with our consolidated financial statements and the related notes, “Selected Consolidated Financing Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” appearing elsewhere in this prospectus.

<u>(in thousands, except share and per share data)</u>	As of December 31, 2013		
	Actual	Pro Forma	Pro Forma As Adjusted
Cash and cash equivalents	\$ 5,488		
Capitalization:			
Long-term debt (including current portion)	\$ 6,258		
Convertible notes	8,824		
Warrant liability	928		
Seed redeemable convertible preferred stock, par value \$0.01 per share; 2,500,000 shares authorized, 2,500,000 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	2,000		
Series A redeemable convertible preferred stock, par value \$0.01 per share; 9,307,692 shares authorized, 9,307,692 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	12,100		
Series B redeemable convertible preferred stock, par value \$0.01 per share; 4,077,500 shares authorized, 3,562,500 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	7,125		
Series B-1 redeemable convertible preferred stock, par value \$0.01 per share; 5,000,000 shares authorized, 4,842,500 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	9,685		
Series C redeemable convertible preferred stock, par value \$0.01 per share; 33,310,787 shares authorized, 31,836,392 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	23,094		

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(in thousands, except share and per share data)	As of December 31, 2013		
	Actual	Pro Forma	Pro Forma As Adjusted
Series D redeemable convertible preferred stock, par value \$0.01 per share; 34,698,793 shares authorized, 33,158,272 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	27,521		
Common stock, par value \$0.0001 per share; 132,000,000 shares authorized, 11,397,068 shares issued and outstanding actual	1		
Additional paid-in capital	4,139		
Accumulated deficit	(98,439)		
Total stockholder's deficit	(94,299)		
Total capitalization	\$ 3,236		

The number of shares of our common stock to be issued upon the automatic conversion of all outstanding principal and accrued interest on our 2013 convertible notes and our 2014 convertible notes upon the closing of this offering depends in part on the initial public offering price of our common stock and the date on which this offering closes. As a result, the actual number of shares of common stock issued upon such conversion may differ from the number of shares set forth above. If the initial public offering price is equal to \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, (1) the outstanding principal and accrued interest on our 2013 convertible notes would convert into an aggregate of shares of our common stock upon the closing of this offering and (2) the outstanding principal and accrued interest on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, or \$ per share, would convert into an aggregate of shares of our common stock upon the closing of this offering, in each case assuming that the offering closes on , 2014. A \$1.00 increase in the assumed initial public offering price of \$ per share would decrease by shares the aggregate number of shares of our common stock issuable upon the automatic conversion of the outstanding principal and interest accrued on our 2013 convertible notes upon the closing of this offering and would decrease by shares the aggregate number of shares of our common stock issuable upon the automatic conversion of the outstanding principal and interest accrued on our 2014 convertible notes upon the closing of this offering. A \$1.00 decrease in the assumed initial public offering price of \$ per share would increase by shares the aggregate number of shares of our common stock issuable upon the automatic conversion of the outstanding principal and accrued interest on our 2013 convertible notes upon the closing of this offering and would increase by shares the aggregate number of shares of our common stock issuable upon the automatic conversion of the outstanding principal and interest accrued on our 2014 convertible notes upon the closing of this offering.

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents and total stockholders' (deficit) equity by approximately \$ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The table above does not include:

- 1,866,816 shares of common stock issuable upon exercise of warrants outstanding as of December 31, 2013, at a weighted-average exercise price of \$0.79 per share;
- 15,416,896 shares of common stock issuable upon exercise of stock options outstanding as of December 31, 2013, at a weighted-average exercise price of \$0.27 per share;

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- 2,017,633 shares of common stock reserved and available as of December 31, 2013 for future issuance under our 2007 Stock Incentive Plan, as amended; and
- and additional shares of our common stock that will be available for future issuance, as of the closing of this offering, under our 2014 stock incentive plan and our 2014 employee stock purchase plan, respectively.

## DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share and the pro forma tangible book value per share of our common stock after this offering.

Our historical net tangible deficit as of December 31, 2013 was \$(95.1) million, or \$(8.34) per share of our common stock. Historical net tangible book value per share represents the amount of our total tangible assets less total liabilities, divided by 11,397,068 shares of our common stock outstanding as of December 31, 2013.

Our pro forma net tangible deficit as of December 31, 2013 was \$( ) million, or \$( ) per share of common stock. Pro forma net tangible book value per share represents the amount of our total tangible assets less our total liabilities, divided by the pro forma number of shares of our common stock outstanding on December 31, 2013, after giving effect to (i) the automatic conversion of all of our outstanding shares of preferred stock into shares of our common stock upon the closing of this offering, (ii) the issuance of shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2013 convertible notes upon the closing of this offering, assuming an initial public offering price per share of \$ , which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on , 2014 and (iii) the issuance of shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, upon the closing of this offering, assuming an initial public offering price per share of \$ , which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on , 2014.

After giving effect to our issuance and sale of shares of common stock in this offering at an assumed initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma net tangible book value as of December 31, 2013 would have been \$ million, or \$ per share. This represents an immediate increase in pro forma net tangible book value per share of \$ to existing stockholders and immediate dilution of \$ in pro forma net tangible book value per share to new investors purchasing common stock in this offering. Dilution per share to new investors is determined by subtracting pro forma net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis:

Assumed initial public offering price per share	\$
Historical net tangible deficit per share as of December 31, 2013	\$ (8.34)
Pro forma per share decrease attributable to pro forma transactions described in preceding paragraphs	( )
Pro forma net tangible deficit per share as of December 31, 2013	( )
Increase per share attributable to sale of shares of common stock in this offering	
Pro forma net tangible book value per share after this offering	\$
Dilution per share to new investors	\$

Each \$1.00 increase in the assumed initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase our pro forma net tangible book value by approximately \$ million, the pro forma net tangible book value per share after this offering by \$ per share and the dilution to investors in this offering by \$ per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and offering expenses payable by us. Each \$1.00 decrease in the assumed initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover

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page of this prospectus, would decrease our pro forma net tangible book value by approximately \$       million, the pro forma net tangible book value per share after this offering by \$       per share and the dilution to investors in this offering by \$       per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and offering expenses payable by us.

If the underwriters exercise their over-allotment option to purchase additional shares or if any additional shares are issued in connection with outstanding options, you will experience further dilution.

The following table summarizes, on a pro forma basis as of December 31, 2013, the total number of shares purchased from us, the total consideration paid, or to be paid, and the average price per share paid, or to be paid, by new investors in this offering at an assumed public offering price of \$       per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us:

	<u>Shares Purchased</u>		<u>Total Consideration</u>		<u>Average Price</u>
	<u>Number</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>	<u>Per Share</u>
Existing stockholders		%	\$	%	\$
New investors					
Total		<u>100%</u>		<u>100%</u>	

A \$1.00 increase in the assumed initial public offering price of \$       per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase the total consideration paid by new investors by \$       million and increase the percentage of total consideration paid by new investors by approximately       %, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. A \$1.00 decrease in the assumed initial public offering price of \$       per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, would decrease the total consideration paid by new investors by \$       million and decrease the percentage of total consideration paid by new investors by approximately       %, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same.

The table above is based on actual shares of our common stock outstanding as of December 31, 2013 and 99,028,475 additional shares of our common stock issuable upon the automatic conversion of all outstanding shares of our preferred stock upon the closing of this offering and also reflects (1) the issuance of       shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2013 convertible notes upon the closing of this offering, assuming an initial public offering price per share of \$       , which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on       , 2014 and (2) the issuance of       shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, upon the closing of this offering, assuming an initial public offering price per share of \$       , which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on       , 2014.

The table above does not include:

- 1,866,816 shares of common stock issuable upon exercise of warrants outstanding as of December 31, 2013, at a weighted-average exercise price of \$0.79 per share;
- 15,416,896 shares of common stock issuable upon exercise of stock options outstanding as of December 31, 2013, at a weighted-average exercise price of \$0.27 per share;
- 2,017,633 shares of common stock reserved and available as of December 31, 2013 for future issuance under our 2007 Stock Incentive Plan, as amended; and

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- and additional shares of our common stock that will be available for future issuance, as of the closing of this offering, under our 2014 stock incentive plan and our 2014 employee stock purchase plan, respectively.

The number of shares of our common stock to be issued upon the automatic conversion of all outstanding principal and accrued interest on our 2013 convertible notes and our 2014 convertible notes upon the closing of this offering depends in part on the initial public offering price of our common stock and the date on which this offering is complete. As a result, the actual number of shares of common stock issued upon such conversion may differ from the number of shares set forth above.

If the underwriters exercise their option to purchase additional shares from us in full, the number of shares held by new investors will increase to , or % of the total number of shares of common stock outstanding after this offering, and the percentage of shares held by existing stockholders will decrease to % of the total shares outstanding.

**SELECTED CONSOLIDATED FINANCIAL DATA**

You should read the following selected consolidated financial data in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and the related notes appearing elsewhere in this prospectus. We have derived the consolidated statements of operations data for the years ended December 31, 2012 and 2013 and for the period from November 28, 2005 (date of incorporation) to December 31, 2013 (as we are a development stage company) and the consolidated balance sheet data at December 31, 2012 and 2013 from our audited consolidated financial statements appearing elsewhere in this prospectus. Our historical results for any prior period are not necessarily indicative of the results to be expected in any future period.

(in thousands, except share and per share data)	Years Ended December 31,		Period from November 28, 2005 (Date of Incorporation) to December 31, 2013
	2012	2013	
<b>Consolidated Statement of Operations:</b>			
Revenue	\$ 625	\$ 6	\$ 1,669
Operating expenses:			
Research and development	15,807	9,700	67,042
General and administrative	6,393	6,166	31,570
Total operating expenses	22,200	15,866	98,612
Other income (expense):			
Interest income	2	2	684
Interest expense	(567)	(1,487)	(2,395)
Decrease in value of preferred stock warrant liability	39	202	215
Total other (expense)—net	(526)	(1,283)	(1,496)
Net loss	(22,101)	(17,143)	(98,439)
Accretion of redeemable convertible preferred stock	(73)	—	(694)
Net loss attributable to common stockholders	\$ (22,174)	\$ (17,143)	\$ (99,133)
Net loss per share attributable to common stockholders:			
Basic and diluted(1)	\$ (2.51)	\$ (1.73)	\$ (11.36)
Weighted-average common shares outstanding:			
Basic and diluted	8,839,998	9,927,850	8,726,883
Pro forma net loss per share attributable to common stockholders (unaudited):			
Basic and diluted(1)		\$ (0.15)	
Pro forma weighted-average common shares outstanding (unaudited):			
Basic and diluted		114,351,117	



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(in thousands)	As of December 31			
	2012	2013	Pro Forma (2)	Pro Forma As Adjusted (3)(4)
<b>Consolidated Balance Sheet Data:</b>				
Cash and cash equivalents	\$ 16,707	\$ 5,488		
Total assets	\$ 17,661	\$ 6,827		
Total liabilities	\$ 13,949	\$ 19,601		
Redeemable convertible preferred stock	\$ 83,751	\$ 81,525		
Common stock	\$ 1	\$ 1		
Additional paid in capital	\$ 1,256	\$ 4,139		
Accumulated deficit	\$(81,296)	\$(98,439)		
Total stockholders (deficit) equity	\$(80,039)	\$(94,299)		

- (1) See notes 2 and 3 within the notes to our consolidated financial statements appearing elsewhere in this prospectus for a description of the method used to calculate basic and diluted net (loss) income per share applicable to common stockholders and pro forma basic and diluted net (loss) income per share applicable to common stockholders.
- (2) The pro forma balance sheet data give effect to (i) the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 99,028,475 shares of common stock upon the closing of this offering, (ii) the issuance of \_\_\_\_\_ shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2013 convertible notes upon the closing of this offering, assuming an initial public offering price per share of \$ \_\_\_\_\_, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on \_\_\_\_\_, 2014, (iii) the issuance of \_\_\_\_\_ shares of common stock upon the conversion of all outstanding principal and accrued interest on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, upon the closing of this offering, assuming an initial public offering price per share of \$ \_\_\_\_\_, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on \_\_\_\_\_, 2014 and (iv) the conversion of our outstanding warrants to purchase 1,857,226 shares of our preferred stock into warrants to purchase 1,866,816 shares of common stock upon the closing of this offering.
- (3) The pro forma as adjusted balance sheet data give effect to our issuance and sale of \_\_\_\_\_ shares of common stock in this offering at an assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.
- (4) A \$1.00 increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, total assets and total stockholders' (deficit) equity by approximately \$ \_\_\_\_\_, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and the related notes appearing elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. You should read the "Risk Factors" section of this prospectus for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.*

### Overview

We are a clinical-stage oncology-focused company applying our proprietary dynamic tumor targeting platform to develop differentiated therapies. Our nanopharmaceutical product candidates consist of proprietary polymers that are covalently linked to anti-cancer therapeutics, or payloads. We believe these nanopharmaceuticals dynamically target tumors by exploiting the leakiness of new blood vessels in tumors as an entry portal into tumor tissue, followed by active uptake into tumor cells and the sustained release of the anti-cancer payload inside the tumor cells.

Our lead product candidate, CRLX101, is a dynamically tumor targeted nanopharmaceutical in Phase 2 clinical development and has the potential to address an unmet need where existing cancer therapies fail. We believe CRLX101, which contains camptothecin as its anti-cancer payload, is a potent, durable and combinable inhibitor of topoisomerase 1, or topo 1, and hypoxia inducible factor, or HIF. Clinical trials for CRLX101 have been conducted in multiple indications at several sites in over 200 patients. In clinical trials conducted to date, CRLX101 appears to be active and well tolerated as monotherapy and active and combinable with Avastin (bevacizumab). In addition, we believe CRLX101 may be combinable with other anti-cancer therapies. We are pursuing development of CRLX101 in combination with anti-cancer therapies in three ongoing clinical development programs:

- A combination trial with Avastin in Phase 2 in patients with relapsed renal cell carcinoma;
- A two-part clinical trial in Phase 2 in patients with relapsed ovarian cancer—consisting of a single-arm trial of CRLX101 as monotherapy and a single-arm combination trial with Avastin; and
- A combination trial with Xeloda (capecitabine) and radiotherapy in Phase 1b in patients with rectal cancer who are being treated through the administration of therapeutic agents prior to surgery. We refer to this form of treatment as neoadjuvant therapy, and we refer to patients who receive neoadjuvant therapy as patients with neoadjuvant rectal cancer.

CRLX301, the second product candidate from our dynamic tumor targeting platform, is a nanopharmaceutical with docetaxel as its anti-cancer payload. Based on observations in preclinical animal tumor models, we believe CRLX301 has the potential to enhance the clinical efficacy, achieve a higher therapeutic index and improve the adverse event profile of docetaxel. We expect to commence clinical trials of CRLX301 by the end of 2014.

In addition to CRLX101 and CRLX301, we have generated additional nanopharmaceuticals using our dynamic tumor targeting platform. We intend to pursue additional product candidate opportunities either by ourselves or in strategic partnerships with pharmaceutical companies to maximize value generation from our platform.

In 2011, we initiated an open-label, randomized Phase 2 clinical trial of CRLX101 as monotherapy in patients with advanced non-small cell lung cancer, or NSCLC, who had progressed through one or two prior

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regimens of chemotherapy. This Phase 2 clinical trial, or the NSCLC clinical trial, which enrolled 157 patients, failed to meet its primary endpoint of improvement in overall survival of the CRLX101-treated group as compared to the control arm of the study, which was best supportive care. However, we observed clear evidence of activity for CRLX101 as measured by Response Evaluation Criteria in Solid Tumors, or RECIST, and observed progression free survival and overall survival comparable to the progression free survival and overall survival observed in approved cancer therapies in this setting. During 2012, the cost of the NSCLC clinical trial was a significant component of our research and development expense.

We have devoted substantially all of our resources to our drug discovery and development efforts, including conducting clinical trials for our product candidates, protecting our intellectual property and the general and administrative support of these operations. To date, we have generated no revenue from product sales. We expect that it will be several years before we commercialize a product candidate, if ever. Through December 31, 2013, we have funded our operations primarily through \$84.2 million in proceeds from the sale of shares of our convertible preferred stock, \$10.0 million in proceeds from borrowings under our loan and security agreement with Lighthouse Capital Partners VI, L.P., or Lighthouse Capital, and \$8.8 million in proceeds from our sale of convertible promissory notes.

We have never been profitable and have incurred significant operating losses since our incorporation. As of December 31, 2013, we had an accumulated deficit of \$98.4 million. We incurred net losses of approximately \$22.1 million for the year ended December 31, 2012 and \$17.1 million for the year ended December 31, 2013.

We expect to continue to incur significant and increasing expenses and operating losses for the foreseeable future, as we attempt to advance our product candidates from discovery through preclinical studies and clinical trials, and as we seek regulatory approval for, and eventually commercialize our product candidates. Our net losses may fluctuate significantly from quarter to quarter and from year to year. We will need to raise additional capital in the future to support our expenses and operating activities.

### **Financial Operations Overview**

#### ***Revenue***

To date, we have not generated any revenue from product sales and do not expect to generate any revenue from product sales for the next several years, if ever. In the future, we may generate revenue from a combination of product sales, license fees, milestone and research and development payments in connection with strategic partnerships, and royalties resulting from the sales of products developed under licenses of our intellectual property. We expect that any revenue we generate will fluctuate from quarter to quarter as a result of the timing and amount of any such payments. We do not expect to generate revenue from product sales for at least the next several years, if ever. Our ability to generate product revenues will depend on the successful development and eventual commercialization of our product candidates. If we fail to complete the development of our product candidates in a timely manner or to obtain regulatory approval for our product candidates, our ability to generate future revenue and our results of operations and financial position would be materially adversely affected.

To date, our only revenue has consisted of a government tax credit that we received in 2010 and payments in 2011, 2012 and 2013 from two material transfer agreements and a research agreement.

#### ***Research and Development Expenses***

Research and development expense consists of costs incurred in connection with the discovery and development of our nanopharmaceutical platform and our product candidates. These expenses consist primarily of:

- employee-related expenses, including salaries, benefits and stock-based compensation expense;
- expenses incurred under agreements with contract research organizations, investigative sites that conduct our clinical trials and consultants that conduct a portion of our preclinical studies;

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- expenses relating to scientific consultants and advisors;
- the cost of acquiring and manufacturing clinical trial materials;
- facilities, depreciation of fixed assets and other allocated expenses, including direct and allocated expenses for rent and maintenance of facilities and equipment;
- lab supplies, reagents, active pharmaceutical ingredients and other direct and indirect costs in support of our preclinical activities;
- license fees related to in-licensed products and technology; and
- costs associated with non-clinical activities and regulatory approvals.

We expense research and development costs as incurred.

Conducting a significant amount of research and development is central to our business model. Product candidates in late stages of clinical development generally have higher development costs than those in earlier stages of clinical development primarily due to the increased size and duration of late-stage clinical trials. We plan to increase our research and development expenses for the foreseeable future as we seek to continue multiple clinical trials of our most advanced product candidate, CRLX101, initiate and continue clinical testing of CRLX301 and advance our earlier-stage research and development projects.

We use our employee and infrastructure resources across multiple research and development programs. We track external research and development expenses and personnel expense on a program-by-program basis and have allocated expenses such as stock-based compensation and indirect laboratory supplies and services to each program based on the personnel resources allocated to each program. Facilities, depreciation and scientific advisory board fees and expenses are not allocated to a program and are considered overhead. Expenses incurred prior to the acquisition of our cyclodextrin polymer containing nanopharmaceutical, or CDP, technology in mid-2009 have been reflected as the cost to develop our proprietary nanopharmaceutical platform in the period from November 28, 2005 (the date of our incorporation) to December 31, 2013, as these expenses were incurred prior to the establishment of the CRLX101 and CRLX301 programs. Below is an unaudited summary of our research and development expenses for the years ended December 31, 2012 and 2013 and the period from the date of our incorporation through December 31, 2013 (in thousands).

	Years Ended December 31,		Period from November 28, 2005 (Date of Incorporation) to December 31, 2013
	2012	2013	
CRLX101	\$ 8,379	\$4,655	\$ 28,339
CRLX301	3,792	2,299	7,527
Nanopharmaceutical platform	2,618	2,007	26,449
Overhead	1,018	739	4,727
Total research and development expense	<u>\$15,807</u>	<u>\$9,700</u>	<u>\$ 67,042</u>

The following summarizes our research and development programs.

### *CRLX101*

We are supporting a Phase 1b/2 investigator-sponsored trial, or IST, of CRLX101 in combination with Avastin in patients with relapsed renal cell carcinoma, and we expect to commence a randomized, well-controlled Phase 2 clinical trial of CRLX101 in combination with Avastin in this indication in the second half of 2014. We are supporting a Phase 2 IST of CRLX101 as monotherapy in patients with relapsed ovarian cancer and a Phase 2 IST of CRLX101 in combination with Avastin in patients with relapsed platinum-resistant ovarian

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cancer. Assuming positive results from the two ISTs in relapsed ovarian cancer, we expect to initiate, in 2015, a pivotal randomized clinical trial of CRLX101 in combination with Avastin in this indication. We are supporting a Phase 1b/2 IST of CRLX101 in combination with chemoradiotherapy, consisting of Xeloda and radiotherapy, in patients with neoadjuvant rectal cancer, and, assuming favorable results from this trial, we expect to commence a randomized, well-controlled Phase 2 clinical trial of CRLX101 in combination with chemoradiotherapy in this indication by the end of 2014.

We cannot accurately project future research and development expenses for our CRLX101 program because such expenses are dependent on a number of variables, including, among others, the cost and design of any additional clinical trials, the duration of the regulatory process and the results of any clinical trials.

Under our license agreement with Calando Pharmaceuticals, Inc., or Calando, pursuant to which we obtained rights to CLRX101, or the CRLX101 Agreement, we will be required to make regulatory and commercial milestone payments in an aggregate amount of up to \$32.8 million to Calando upon the achievement of specified regulatory and commercial milestones. In addition, under the CRLX101 Agreement, if we, or one of our affiliates, sell CRLX101, we are required to pay tiered royalty payments ranging from low- to mid-single digits, depending on whether there is patent protection for CRLX101 at the time of the sale, as a percentage of worldwide net sales. In the event we license or sublicense the intellectual property that we purchased or licensed from Calando, we are required to pay Calando a percentage of the income we receive from the licensee or sublicensee to the extent attributable to such license or sublicense, subject to certain exceptions. The percentage of such license income that we are obligated to pay Calando ranges from the low- to mid-double digits depending on the development stage of CRLX101 at the time we first provide or receive draft terms of a license arrangement with the third party that results in a license agreement.

### *CRLX301*

We are currently conducting preclinical studies of CRLX301 and expect to commence clinical trials by the end of 2014. We cannot accurately predict future research and development expenses for our CRLX301 program because such costs are dependent on a number of variables, including, among others, the cost and design of any additional clinical trials, the duration of the regulatory process and the results of the planned Phase 1 clinical trials and any future trials.

Under our license agreement with Calando pursuant to which we obtained rights to Calando's cyclodextrin system for purposes of conjugating or complexing certain other therapeutic agents to the system, or the Platform Agreement, we will be required to pay a \$250,000 clinical development milestone to Calando when we initiate our Phase 1 clinical trial of CRLX301. We expect to initiate the Phase 1 clinical trial and pay this milestone by the end of 2014. We may also be required to make regulatory and commercial milestone payments in an aggregate amount of up to \$17.8 million to Calando upon the achievement of specified regulatory and commercial milestones. Further, under the Platform Agreement, if we, or one of our affiliates, sell CRLX301, we are required to pay tiered royalty payments ranging from low- to mid-single digits, depending on whether there is patent protection for CRLX301 at the time of the sale, as a percentage of worldwide net sales. In the event we license or sublicense the intellectual property that we purchased or licensed from Calando, we are required to pay Calando a percentage of the income we receive from the licensee or sublicensee to the extent attributable to such license or sublicense, subject to certain exceptions. The percentage of such license income that we are obligated to pay Calando is in the low double digits and varies depending on the development stage of CRLX301 at the time that we first provide or receive draft terms of a license arrangement with the third party that results in a license agreement.

### *Nanopharmaceutical Pipeline*

We expect that the expenses related to our nanopharmaceutical pipeline will continue to increase as we seek to identify additional targets for preclinical research and add personnel to these projects. We cannot accurately

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predict future research and development expenses for our nanopharmaceutical pipeline because such costs are dependent on a number of variables, including the success of preclinical studies on any such nanopharmaceuticals.

The successful development of any of our product candidates is highly uncertain. As such, at this time, we cannot reasonably predict with certainty the duration and costs of the current or future clinical trials of any of our product candidates or if, when or to what extent we will generate revenues from any commercialization and sale of any of our product candidates that obtain marketing approval. We may never succeed in achieving regulatory approval for any of our product candidates. The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors, including:

- the scope and rate of progress of our ongoing as well as any additional clinical trials;
- the scope, progress, results and costs of preclinical development, laboratory testing and other research and development activities;
- results from ongoing as well as any additional clinical trials;
- significant and changing government regulation;
- the costs, timing and outcome of regulatory review of our product candidates;
- our ability to establish and maintain strategic partnerships, and the terms and success of those partnerships, if any, including the timing and amount of payments that we might receive from potential strategic partners;
- our ability to manufacture, market, commercialize and achieve market acceptance for any of our product candidates that we are developing or may develop in the future;
- the emergence of competing technologies and products and other adverse market developments; and
- the cost of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims.

Any change in the outcome of any of these variables with respect to the development of a product candidate could mean a significant change in the cost and timing associated with the development of that product candidate. For example, if the FDA or a comparable non-U.S. regulatory authority were to require us to conduct clinical trials beyond those that we currently anticipate will be required for the completion of clinical development of a product candidate, or if we experience significant delays in enrollment in any of our clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development.

As a result of the uncertainties discussed above, we are unable to determine when, or to what extent, we will generate revenues from the commercialization and sale of any of our product candidates. We anticipate that we will make determinations as to which additional programs to pursue and how much funding to direct to each program on an ongoing basis in response to the scientific and clinical success of each product candidate, as well as our ongoing assessment of the product candidate's commercial potential. We will need to raise additional capital in the future in order to complete the development and commercialization of CRLX101 and CRLX301 and to fund the development of our other product candidates.

### ***General and Administrative Expenses***

General and administrative expenses consist principally of salaries and related costs for personnel in our executive, finance, business development, marketing, legal and human resources functions. Other general and administrative expenses include patent filing, patent prosecution, professional fees for legal, insurance, consulting, information technology, auditing and tax services and facility costs not otherwise included in research and development expenses.

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We anticipate that our general and administrative expenses will increase in the future for, among others, the following reasons:

- we expect to incur increased general and administrative expenses to support our research and development activities, which we expect to expand as we continue to pursue the development of our product candidates;
- we expect our general and administrative expenses to increase as a result of increased payroll, expanded infrastructure, higher consulting, legal, accounting and investor relations costs, director compensation and director and officer insurance premiums associated with being a public company; and
- we may begin to incur expenses related to sales and marketing of our product candidates in anticipation of commercial launch before we receive regulatory approval of a product candidate.

### **Interest Income**

Interest income consists of interest earned on our cash and cash equivalents. The primary objective of our investment policy is capital preservation.

### **Interest Expense**

Interest expense consists primarily of interest, amortization of debt discount and amortization of deferred financing costs associated with our debt facility with Lighthouse Capital.

### **Change in Fair Value of Preferred Stock Warrant Liability**

The preferred stock warrant liability is associated with warrants to purchase shares of our preferred stock issued to lenders and investors. The change in fair value consists of the calculated change in value based upon the fair value of the underlying security at the end of each reporting period as calculated using the Black-Scholes option-pricing model.

## **Results of Operations**

### **Comparison of Twelve Months Ended December 31, 2012 and 2013**

The following table summarizes our consolidated results of operations for the years ended December 31, 2012 and 2013, together with the changes in those items in dollars and as a percentage (in thousands, except percentages):

	Years Ended December 31,		Change	
	2012	2013	Dollar	%
Revenue	\$ 625	\$ 6	\$ (619)	*
Operating expenses:				
Research and development	15,807	9,700	(6,107)	(39)%
General and administrative	6,393	6,166	(227)	(4)%
Loss from operations	(21,575)	(15,860)	5,715	26%
Other income/(expense), net	(526)	(1,283)	(757)	*
Net loss	<u>\$ (22,101)</u>	<u>\$ (17,143)</u>	<u>\$ 4,958</u>	<u>22%</u>

\* Not meaningful

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**Revenue.** Revenue for the year ended December 31, 2012 was \$0.6 million compared to \$6,000 for the year ended December 31, 2013. We recorded revenue in 2012 and 2013 in connection with two material transfer agreements, each with a different pharmaceutical company. Pursuant to each of the agreements, we received payments in exchange for the pharmaceutical company's use of our proprietary technology for research purposes.

**Research and development.** The following table summarizes our research and development expense by program for the years ended December 31, 2012 and 2013, together with the change in spending by program in dollars and as a percentage (in thousands, except percentages):

	Years Ended December 31,		Change	
	2012	2013	Dollar	%
CRLX101	\$ 8,379	\$ 4,655	\$(3,724)	(44)%
CRLX301	3,792	2,299	(1,493)	(39)%
Nanopharmaceutical platform	2,618	2,007	(611)	(23)%
Overhead	1,018	739	(279)	(27)%
Total research and development expense	<u>\$ 15,807</u>	<u>\$ 9,700</u>	<u>\$(6,107)</u>	<u>(39)%</u>

Research and development expense for the year ended December 31, 2012 was \$15.8 million compared to \$9.7 million for the year ended December 31, 2013, a decrease of \$6.1 million, or 39%. The decrease was reflected across all programs. The \$3.7 million decrease in CRLX101 expense was primarily the result of winding down the NSCLC clinical trial, which was substantially completed in March 2013. Clinical trial expense decreased \$2.1 million and contract manufacturing expense for clinical trial material decreased \$1.6 million. The decrease in spending on the CRLX301 program in the year ended December 31, 2013 from the year ended December 31, 2012 was the result of our completion of development activities, such as investigational new drug, or IND, enabling studies and process development, early in 2013. We expect to advance CRLX301 into a Phase 1 clinical trial by the end of 2014. Expenses associated with our nanopharmaceutical platform decreased \$0.6 million, mainly as a result of reduced staff in new discovery research as our primary emphasis shifted to the development of our product candidates. The \$0.3 million overhead decrease was due mainly to a reduction in retainer-based advisory agreements and reduced depreciation expense.

**General and administrative.** General and administrative expense for the year ended December 31, 2012 was \$6.4 million compared to \$6.2 million for the year ended December 31, 2013, a decrease of \$0.2 million, or 4%. The decrease was the result of a \$0.4 million decrease in outside corporate and intellectual property legal expenses, offset by a \$0.1 million increase in personnel costs and a \$0.1 million increase in consulting expense.

**Other income (expense), net.** Other expense, net for the year ended December 31, 2012 was \$(0.5) million compared to (\$1.3) million net expense for the year ended December 31, 2013, an increased expense of \$0.8 million. The increase in net expense primarily resulted from \$0.9 million increase in recorded interest expense on our borrowings under our loan and security agreement with Lighthouse Capital. We entered into a loan and security agreement with Lighthouse Capital in December 2011 and borrowed \$5.0 million in March 2012 and \$5.0 million in August 2012. In addition, the adjustment to the fair value of our outstanding preferred stock warrants resulted in \$0.2 million of other income for the year ended December 31, 2013 compared with \$39,000 for the year ended December 31, 2012.

## **Liquidity and Capital Resources**

From our incorporation through December 31, 2013, we have raised an aggregate of \$103.0 million to fund our operations, of which \$84.2 million was from the sale of preferred stock, \$10.0 million was from borrowings under our loan and security agreement with Lighthouse Capital and \$8.8 million was from the sale of convertible promissory notes. As of December 31, 2013, we had cash and cash equivalents of approximately \$5.5 million.



### ***Indebtedness***

In 2011, we entered into a loan and security agreement, or the loan agreement, with Lighthouse Capital. The loan agreement permitted us to borrow up to an aggregate principal amount of \$10.0 million. We borrowed \$5.0 million in March 2012 and an additional \$5.0 million in August 2012. The loan agreement is secured by substantially all of our assets other than our intellectual property. We have also granted Lighthouse Capital a negative pledge with respect to our intellectual property, which, among other things, prohibits us from selling, transferring, assigning, mortgaging, pledging, leasing, granting a security interest in or otherwise encumbering our intellectual property. The loan agreement includes restrictive covenants that may restrict our ability to obtain further debt or equity financing. The aggregate principal amount outstanding accrues interest at an annual rate of 8.25% and is payable over 36 monthly payments beginning on December 1, 2012, with a one-time final payment of 6% of the original principal amount due on December 1, 2015. As of December 31, 2013, there was \$6.7 million in principal amount outstanding under the loan agreement.

In 2013, we issued and sold convertible promissory notes, or our 2013 convertible notes, in an aggregate principal amount of \$8.8 million to certain of our stockholders. Our 2013 convertible notes bear interest at an annual rate of 7% and are payable after one year upon demand made by the holders of at least 60% of the aggregate principal amount outstanding under the 2013 convertible notes. Upon closing of this offering, all principal and accrued interest under our 2013 convertible notes will convert into an aggregate of \_\_\_\_\_ shares of our common stock, assuming an initial public offering price per share of \$ \_\_\_\_\_, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on \_\_\_\_\_, 2014.

In 2014, we issued and sold convertible promissory notes, or the 2014 convertible notes, in an aggregate principal amount of \$8.5 million to certain of our stockholders and one additional purchaser. The 2014 convertible notes bear interest at an annual rate of 7% and are payable after one year upon demand made by the holders of at least 60% of the aggregate principal amount outstanding under the 2014 convertible notes. Upon closing of this offering, all principal and accrued interest under our 2014 convertible notes will convert into an aggregate of \_\_\_\_\_ shares of our common stock, assuming an initial public offering price per share of \$ \_\_\_\_\_, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on \_\_\_\_\_, 2014. The principal and accrued interest under our 2014 convertible notes will convert at 77.5% of the initial public offering price.

### ***Plan of Operations and Future Funding Requirements***

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third-party clinical research and development services, contract manufacturing services, laboratory and related supplies, clinical costs, legal and other regulatory expenses and general overhead costs.

We expect that the net proceeds from this offering, together with our cash and cash equivalents as of December 31, 2013, and the additional proceeds received through the issuance of the 2014 convertible notes, will fund our operating expenses, debt service and capital expenditure requirements through \_\_\_\_\_, which we expect will enable us to fund our planned randomized Phase 2 clinical trial of CRLX101 in combination with Avastin in relapsed renal cell carcinoma, to fund our planned randomized Phase 2 clinical trial of CRLX101 in combination with chemoradiotherapy in neoadjuvant rectal cancer, to support the ongoing CRLX101 investigator-sponsored trials and to fund our planned Phase 1 clinical trial of CRLX301. We have based these estimates on assumptions that may prove to be wrong, and we may exhaust our capital resources sooner than we currently expect. In addition, the process of testing product candidates in clinical trials is costly, and the timing of progress in clinical trials is uncertain. Because our drug candidates are in various stages of clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates or whether, or when, we may achieve profitability. Our future capital requirements will depend on many factors, including:

- the progress and results of our clinical trials of CRLX101;

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- the progress and results of our clinical trials of CRLX301;
- our ability to manufacture sufficient supply of our product candidates and costs thereof;
- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for our other drug candidates;
- the costs, timing and outcome of regulatory review of our drug candidates;
- the costs and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution for any of our drug candidates for which we receive marketing approval;
- the number and development requirements of other drug candidates we pursue;
- our ability to enter into collaborative agreements and achieve milestones under those agreements;
- the revenue, if any, received from commercial sales of our drug candidates for which we receive marketing approval;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims; and
- the extent to which we acquire or in-license other products and technologies.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings and revenue from collaboration arrangements. In 2014, we issued and sold an aggregate principal amount of \$8.5 million of our 2014 convertible notes to certain of our existing stockholders and one additional purchaser. We expect our current cash, including proceeds from our 2014 convertible notes, and cash equivalents will enable us to fund our operations through at least the closing of the initial public offering process. To the extent that we raise additional capital through the future sale of equity or debt, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our existing common stockholders. If we raise additional funds through collaboration arrangements in the future, we may have to relinquish valuable rights to our technologies, future revenue streams or drug candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market drug candidates that we would otherwise prefer to develop and market ourselves.

### **Cash Flows**

The following table sets forth the primary sources and uses of cash for each period set forth below (in thousands):

	<u>Years Ended December 31,</u>		<u>Period from</u>
	<u>2012</u>	<u>2013</u>	<u>November 28, 2005</u>
			<u>(Date of</u>
			<u>Incorporation)</u>
			<u>to December 31,</u>
			<u>2013</u>
Net cash (used in) operating activities	\$ (21,005)	\$ (16,614)	\$ (90,652)
Net cash (used in) investing activities	\$ (180)	\$ (7)	\$ (2,333)
Net cash provided by financing activities	\$ 22,547	\$ 5,402	\$ 98,473
Net increase (decrease) in cash and cash equivalents	\$ 1,362	\$ (11,219)	\$ 5,488

### **Net Cash Used in Operating Activities**

The net use of cash in all periods resulted primarily from our net losses adjusted for non-cash charges and changes in components of working capital.

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Net cash used in operating activities was \$21.0 million for the year ended December 31, 2012 compared with \$16.6 million for the year ended December 31, 2013, a decrease of \$4.4 million. The decrease primarily resulted from a \$6.1 million decrease in research and development expense and \$0.2 million decrease in general and administrative expense. These decreases were offset by a \$0.7 million increase in interest payments on our debt facility with Lighthouse Capital, \$0.6 million in collaboration revenue recorded in the year ended December 31, 2012 and \$0.6 million resulting from net changes in the components of working capital.

### *Net Cash Used in Investing Activities*

Net cash used in investing activities was \$180,000 for the year ended December 31, 2012 compared to \$7,000 for the year ended December 31, 2013. The decrease was primarily the result of additional research laboratory equipment, employee computers and office equipment and furniture purchased in the year ended December 31, 2012 compared to similar purchases in the year ended December 31, 2013.

### *Net Cash Provided by Financing Activities*

Net cash provided by financing activities was \$22.5 million during the year ended December 31, 2012 compared to \$5.4 million during the year ended December 31, 2013. During the year ended December 31, 2013, we sold \$8.8 million in convertible promissory notes and repaid indebtedness under the loan agreement with Lighthouse Capital in the amount of \$3.1 million and we paid \$0.4 million of debt issuance cost related to the convertible note issuance and this offering. In the year ended December 31, 2012, we sold preferred stock for net proceeds of \$12.9 million, borrowed \$10.0 million under our loan agreement with Lighthouse Capital and repaid indebtedness under the loan agreement in the amount of \$0.4 million.

## **Contractual Obligations and Contingent Liabilities**

The following summaries our significant contractual obligations as of December 31, 2013 (in thousands):

Contractual Obligations	Payments Due by Period (\$)				
	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Operating Lease Obligations(1)	1,338	610	728	—	—
Debt Obligations(2)	6,670	3,349	3,321	—	—

- (1) Represents minimum future lease payments under our non-cancelable operating lease. The minimum lease payments above do not include any related common area maintenance charges or real estate taxes.
- (2) Consists of payment obligations for principal and interest under our debt facility with Lighthouse Capital. As of December 31, 2013, we had \$6.7 million in outstanding borrowings under the debt facility, bearing interest at 8.25%. Under the terms of the loan agreement governing the debt facility, we were permitted us to borrow up to an aggregate principal amount of \$10.0 million. We borrowed \$5.0 million in March 2012 and an additional \$5.0 million August 2012. The loan agreement is secured by substantially all of our assets other than our intellectual property. We have also granted Lighthouse Capital a negative pledge with respect to our intellectual property, which, among other things, prohibits us from selling, transferring, assigning, mortgaging, pledging, leasing, granting a security interest in or otherwise encumbering our intellectual property. The aggregate principal amount outstanding accrues interest at an annual rate of 8.25% and is payable over 36 monthly payments beginning on December 1, 2012, with a one-time final payment of 6% of the original principal amount due on December 1, 2015.

Milestone and royalty payments associated with our license agreements have not been included in the above table of contractual obligations as we cannot reasonably estimate if or when they will occur. Possible future payments under our license agreements include the following:

- Under the CRLX101 Agreement, we will be required to pay to Calando: (1) milestone payments in an aggregate amount of up to \$32.8 million upon the achievement of certain development, regulatory and

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commercial milestones, (2) tiered royalty payments ranging from low- to mid-single digits, as a percentage of worldwide net sales, if we or one of our affiliates sells CRLX101 and (3) a percentage, ranging from the low- to mid-double digits, of any licensing or sublicensing income we receive from our license or sublicense of CRLX101.

- Under the Platform Agreement, we will be required to pay to Calando: (1) a \$250,000 clinical development milestone to Calando when we initiate our Phase 1 clinical trial of CRLX301, (2) additional milestone payments in an aggregate amount of up to \$17.8 million to Calando upon the achievement of certain regulatory and commercial milestones, (3) tiered royalty payments ranging from low- to mid-single digits, as a percentage of worldwide net sales, in the event we or one of our affiliates sells CRLX301 and (4) a percentage, in the low-double digits, of any licensing or sublicensing income we receive from our license or sublicense of CRLX301.
- Under our license agreement with the California Institute of Technology, or Caltech, we are obligated to pay Caltech (1) an annual minimum royalty of \$10,000, (2) reimbursement for any costs it incurs to prosecute and maintain the patent rights licensed pursuant to the license agreement, subject to certain offsets and (3) certain amounts that Caltech would have been entitled to receive from Calando under its prior license agreement with Calando with respect to our sales of products licensed under the license agreement.
- Under our license agreement with The Research Foundation of State University of New York on behalf of University at Buffalo, or SUNY, we are obligated to pay SUNY (1) an escalating annual license maintenance fee, (2) development milestone payments not to exceed, in the aggregate, \$100,000 and (3) royalties in the low single digits as a percentage of net sales of products covered by the patent rights licensed under the license agreement.
- Under our license agreement with the Massachusetts Institute of Technology, or MIT, we are obligated to pay MIT (1) an escalating annual license maintenance fee beginning in January 2015, (2) royalties at a low single digit percentage of net sales of products covered by the patent rights licensed pursuant to the license agreement and (3) a percentage, in the low double digits, of sublicense payments we receive from sublicenses of the patents licensed pursuant to the license agreement. None of our lead product candidates utilize technology covered by our license agreement with MIT.

In the course of our normal business operations, we also enter into agreements with contract service providers and others to assist in the performance of our research and development and manufacturing activities. We can elect to discontinue the work under these agreements at any time with notice, and such agreements do not contain minimum purchase obligations.

### **Off-Balance Sheet Arrangements**

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under applicable SEC rules.

### **Critical Accounting Policies and Use of Estimates**

Our management's discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our consolidated financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to accrued expenses and stock-based compensation. We base our estimates on historical experience, known trends and events and various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources.

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Actual results may differ from these estimates under different assumptions or conditions. On an ongoing basis, we evaluate our judgments and estimates in light of changes in circumstance, facts and experience. The effects of material revisions in estimates, if any, will be reflected in the consolidated financial statements prospectively from the date of change in estimates.

Our significant accounting policies are described in more detail in Note 2 of the notes to our consolidated financial statements appearing elsewhere in this prospectus. We believe the following accounting policies are critical to the judgments and estimates used in the preparation of the consolidated financial statements.

### ***Accrued Expenses***

As part of the process of preparing our consolidated financial statements, we are required to estimate our accrued expenses. This process involves reviewing open contracts and purchase orders, communicating with applicable personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual cost. The majority of our service providers invoice us monthly in arrears for services performed. We make estimates of our accrued expenses as of each balance sheet date in our consolidated financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. Examples of estimated accrued clinical expenses include:

- fees paid to contract research organizations in connection with clinical trials;
- fees paid to investigative sites in connection with clinical trials;
- fees paid to contract manufacturers in connection with the production of clinical trial materials; and
- fees paid to vendors in connection with the preclinical development activities.

We base our expenses related to clinical studies on our estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and contract research organizations that conduct and manage clinical studies on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical trial milestones. In accruing the service fees, we consider the terms of each agreement, the time period over which the services will be performed and the level of effort required to complete the service. If the actual timing of the performance of the services or the level of effort varies from our estimate, we adjust the accrual accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in us reporting amounts that are too high or too low in any particular period. Based on our level of clinical trial expenses as of December 31, 2013, if our estimates are too high or too low by 5%, this may result in an adjustment to our accrued clinical trial expenses in future periods of approximately \$30,000.

### ***Preferred Stock Warrant Liability***

As of December 31, 2013, we had outstanding warrants for the purchase of shares of our preferred stock. Freestanding warrants related to shares that are redeemable or contingently redeemable are classified as a liability on our consolidated balance sheet. We use the Black-Scholes option-pricing model to estimate the fair value of the warrants. Changes in the fair value of these warrants fluctuate with changes in the underlying assumptions in the Black-Scholes method and are recorded in our consolidated statements of operations. The significant assumptions include the risk-free interest rate, the estimated life of the warrant, volatility and the underlying value of our preferred stock.

### **Stock-Based Compensation**

We issue stock-based awards to employees and non-employees in the form of stock options. We apply the fair value recognition provisions of the Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718, *Compensation-Stock Compensation*, or ASC 718. ASC 718 requires all stock-based payments to employees, including grants of employee stock options and modifications to existing stock options, to be recognized in the consolidated statements of operations based on their fair values. We account for stock-based awards to non-employees in accordance with FASB ASC Topic 515-50, *Equity-Based Payments to Non-Employees*, which requires the fair value of the award to be re-measured at fair value as the award vests. We recognize the compensation expense of stock-based awards on a straight-line basis over the vesting period of the award for employees and non-employees. We have issued some performance-based grants where the vesting of the grant is tied to achievement of certain milestones, and, in these cases, the compensation expense is recognized when the milestone is met and the option is vested. Compensation expense related to our stock-based awards is subject to a number of estimates, including the estimated volatility and underlying fair value of our common stock, as well as the estimated life of the awards.

We estimate the fair value of our stock-based awards to employees and non-employees using the Black-Scholes option-pricing model, which requires the input of highly subjective assumptions, including (a) the expected volatility of our stock, (b) the expected term of the award, (c) the risk-free interest rate and (d) expected dividends. Due to the lack of a public market for the trading of our common stock and a lack of company-specific historical and implied volatility data, we have based our estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. For these analyses, we have selected companies with comparable characteristics to ours, including enterprise value, risk profile and position within the industry, and with historical share price information sufficient to meet the expected life of the stock-based awards. We compute the historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of our stock-based awards. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available. We have estimated the expected life of our employee stock options using the "simplified" method, whereby, the expected life equals the average of the vesting term and the original contractual term of the option. The risk-free interest rates for periods within the expected life of the option are based on the United States Treasury yield curve in effect during the period in which the options were granted.

We are also required to estimate forfeitures at the time of grant, and revise those estimates in subsequent periods if actual forfeitures differ from estimates. We use historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that are expected to vest. To the extent that actual forfeitures differ from our estimates, the difference is recorded as a cumulative adjustment in the period the estimates were revised. Stock-based compensation expense recognized in our consolidated financial statements is based on awards that are ultimately expected to vest.

We have computed the fair value of employee stock options at date of grant using the following weighted-average assumptions:

	Years Ended December 31,	
	2012	2013
Expected volatility	77% - 79%	59% - 79%
Expected term (in years)	6.00	6.00
Risk-free interest rate	0.83% - 1.12%	1.09% - 1.92%
Expected dividend yield	0.0%	0.0%

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Stock-based compensation for employees and non-employees totaled approximately \$0.5 million and \$0.6 million for the years ended December 31, 2012 and 2013, respectively, allocated as outlined below (in thousands):

	Years Ended December 31,	
	2012	2013
Research and development	\$ 187	\$ 284
General and administrative	342	338
Total	<u>\$ 529</u>	<u>\$ 622</u>

As of December 31, 2013, we had \$0.6 million of total unrecognized compensation expense, net of related forfeiture estimates, which is expected to be recognized over a weighted-average remaining vesting period of approximately 2.11 years. We expect our stock-based compensation expense for stock options and restricted stock granted to employees and non-employees to increase in future periods due to the potential increases in the value of our common stock and headcount.

### **Common Stock Valuation**

The following table summarized by grant date the number of shares of common stock underlying stock options granted between January 1, 2012 and the date of this prospectus, as well as the associated per share exercise price and the estimated fair value per share of our common stock on the grant date:

Grant Dates	Number of Shares Underlying Options Granted	Exercise Price Per Share	Estimated Fair Value Per Share on Grant Date
January 25, 2012	3,670,000	\$ 0.26	\$ 0.26
February 6, 2012	181,400	\$ 0.26	\$ 0.26
March 7, 2012	20,000	\$ 0.26	\$ 0.26
June 5, 2012	150,000	\$ 0.26	\$ 0.26
September 19, 2012	62,500	\$ 0.26	\$ 0.26
December 7, 2012 – December 27, 2012	2,863,764	\$ 0.27	\$ 0.27
January 4, 2013	289,500	\$ 0.27	\$ 0.27
February 7, 2013	1,294,832	\$ 0.27	\$ 0.27
December 13, 2013	48,000	\$ 0.52	\$ 0.52
January 10, 2014 – January 27, 2014	2,315,500	\$ 0.73	\$ 0.73

We have historically granted stock options at exercise prices not less than the fair value of our common stock. As there has been no public market for our common stock to date, the estimated fair value of our common stock has been determined by our board of directors. We are a private company with no active public market for our common stock. Therefore, we have periodically determined for financial reporting purposes the estimated per share fair value of our common stock at various dates using contemporaneous valuations performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, or the Practice Aid. We performed these contemporaneous valuations as of December 31, 2011, December 1, 2012, September 30, 2013 and December 31, 2013. In conducting the contemporaneous valuations, we considered all objective and subjective factors that we believed to be relevant for each valuation conducted, including our best estimate of our business condition, prospects and operating performance at each valuation date. Within the contemporaneous valuations performed, a range of factors, assumptions and methodologies were used. The significant factors included:

- the prices of our preferred stock sold to or exchanged between outside investors in arms' length transactions, and the rights, preferences and privileges of our preferred stock as compared to the rights of our common stock, including the liquidation preferences of our preferred stock;

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- our results of operations, financial position and the status of our research and development efforts;
- the composition of, and changes to, our management team and board of directors;
- the lack of liquidity of our common stock given that we are a private company;
- our stage of development and business strategy and the material risks related to our business and industry;
- the achievement of enterprise milestones;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies;
- any external market conditions affecting the life sciences and biotechnology industry sectors;
- the likelihood of achieving a liquidity event for the holders of our common stock and stock options, such as an initial public offering, or a sale of our company, given prevailing market conditions;
- the state of the initial public offering market for similarly situated privately held biotechnology companies; and
- any recent contemporaneous valuations prepared by our board of directors and management in accordance with methodologies outlined in the Practice Aid.

The dates of our contemporaneous valuations have not always coincided with the dates of our stock-based compensation grants. In determining the exercise prices of the options granted, our board of directors considered, among other things, the most recent contemporaneous valuations of our common stock and our assessment of additional objective and subjective factors we believed were relevant as of the grant date. The additional factors considered when determining any changes in fair value between the most recent contemporaneous valuation and the grant dates included, when available, the prices paid in recent transactions involving our equity securities, as well as our stage of development, our operating and financial performance and current business conditions.

In September 2013, based on our review of overall market conditions and the improving market for biopharmaceutical initial public offerings, our board of directors determined that a significant shift was occurring with respect to the valuation that we could achieve in an initial public offering and directed us to begin preparation of a confidential draft registration statement for an initial public offering. We selected underwriters and held an organizational meeting in December 2013. We believe these events increased the probability of an early initial public offering scenario and therefore, in connection with the preparation of our consolidated financial statements, we re-assessed the fair value of our common stock for financial reporting purposes at interim dates between the contemporaneous valuations where there were stock option grants or modifications to existing grants. For these interim periods, we adjusted the fair value based on market conditions, progress made in our development programs and whether we achieved company milestones. A retrospective valuation was conducted as of May 31, 2013.

In April 2013, our board of directors approved the modification of stock options held by certain employees in connection with the reduction-in-force we implemented between April and August 2013. In exchange for a release of claims, vested stock options held as of termination by these employees were modified to extend the post-employment exercise period from ninety days to two years after the termination date. In addition, in June 2013, our board of directors approved accelerated vesting on certain stock options held by an executive officer included in the reduction-in-force. In December 2013, with the benefit of hindsight, and our belief that the probability of an initial public offering scenario had increased from April 2013, we conducted a retrospective valuation for our common stock as of May 31, 2013. The retrospective valuation for our common stock as of May 31, 2013 was used to record stock compensation expense for the modification on stock options for employees with termination dates in the second quarter of 2013. The contemporaneous valuation we conducted as of September 30, 2013, was used to record stock compensation expense for the modification on stock options for terminated employees with termination dates in the third quarter of 2013. In total, we recorded additional stock compensation expense of \$0.1 million in connection with the stock option modifications.



### ***Common Stock Valuation Methodologies***

The contemporaneous and retrospective valuations discussed below were prepared in accordance with the guidelines in the Practice Aid, which prescribes several valuation approaches for setting the value of an enterprise, such as the cost, market and income approaches, and various methodologies for allocating the value of an enterprise to its common stock. We generally used the market approach, in particular the guideline company and precedent transaction methodologies, based on inputs from comparable public companies' equity valuations and comparable acquisition transactions, to estimate the enterprise value of our company.

### ***Methods Used to Allocate Our Enterprise Value to Classes of Securities***

In accordance with the Practice Aid, we considered the various methods for allocating the enterprise value across our classes and series of capital stock to determine the fair value of our common stock at each valuation date. The methods we considered consisted of the following:

- *Current Value Method.* Under the current value method, once the fair value of the enterprise is established, the value is allocated to the various series of preferred and common stock based on their respective seniority, liquidation preferences or conversion values, whichever is greatest.
- *Option Pricing Method.* Under the option pricing method, shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The values of the preferred and common stock are inferred by analyzing these options.
- *Probability-Weighted Expected Return Method, or PWERM.* The PWERM is a scenario-based analysis that estimates the value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.

### ***December 31, 2011 Contemporaneous Common Stock Valuation***

In January 2012, we conducted a contemporaneous valuation of our common stock as of December 31, 2011, using the market approach, specifically the recent transactions method, to determine our enterprise value. As we had recently completed our Series D preferred stock financing in an arms' length transaction with investors, we determined this to be the best evidence of our value. We utilized the option pricing method to solve for the equity value that was consistent with the price paid by the Series D preferred investors. The option pricing method treats common stock and preferred stock as call options on the enterprise's value, with exercise prices based on the liquidation preference of the preferred stock. The common stock has value only if the funds available for distribution to shareholders exceed the value of the liquidation preference at the time of a liquidity event (for example, merger or sale), assuming the enterprise has funds available to make a liquidation preference meaningful and collectible by the shareholders. The common stock is modeled as a call option that gives its owner the right but not the obligation to buy the underlying enterprise value at a predetermined exercise price. In the model, the exercise price is based on a comparison with the enterprise value rather than, as in the case of a "regular" call option, a comparison with a per-share stock price. Thus, common stock is considered to be a call option with a claim on the enterprise at an exercise price equal to the remaining value immediately after the preferred stock is liquidated. Typically option-pricing models such as the Black-Scholes model or a form of a lattice model (e.g. binomial) would be used to price the call option. The option pricing method considers the various terms of the stockholder agreements—including the level of seniority among the securities, dividend policy, conversion ratios and cash allocations—upon liquidation of the enterprise. In addition, the method implicitly considers the effect of the liquidation preference as of the future liquidation date, not as of the valuation date. In utilizing the recent transactions method, we utilized an option pricing method to estimate our equity value, which was consistent with the price paid for the Series D preferred stock acquired by investors on December 2, 2011.

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In solving for the equity value implied by the Series D preferred stock financing we utilized the option pricing method and the key assumptions were as follows:

- Underlying equity value—Solved for the equity value that was consistent with the price paid for the Series D preferred shares.
- Volatility—We estimated volatility based on guideline publicly traded companies with a term consistent with the timeline to the liquidity event.
- Time to liquidity—We estimated a weighted-average time to a sale event of 2.00 years based on the projected time to significant clinical development events for our drug candidates.
- Risk-free interest rate—We determined the risk-free interest rate based on the yield of a United States Treasury bill with a maturity date closest to the estimated time to a sale event for our stockholders.
- Discounts for lack of control and marketability—The common stock options being granted represent an option to purchase a minority interest in us. As our capital structure is comprised of common and preferred shares, we considered the additional rights held by the holder of the preferred shares. The preferred shares possess certain rights not held by the common stockholders. These rights include, but are not limited to, drag-along rights and rights to appoint members of our board of directors. Additionally, as of December 31, 2011, we believed the most likely liquidity event was a sale. Because we are a privately-held company, shares of our common stock are highly illiquid and, as such, warrant a discount in value from their estimated “marketable” price. In assessing the discount, we used legal guidelines from United States Tax Court cases regarding privately-held business valuations, fundamental business factors and empirical studies on the discount for lack of marketability. We corroborated the discount based on the value of a put option compared to the value of common stock using a Black-Scholes option-pricing model. We also considered that our preferred stock has rights that our common stock does not have, including anti-dilution protection, redemption rights, protective provisions in our certificate of incorporation and rights to participate in future rounds of financing. Our preferred stockholders have control and influence over the enterprise, which provides them with the optionality over future liquidity, financing and other decisions that the common stock option holders do not control. As a result of these factors, we applied an aggregate 20% discount for lack of control and marketability.

The resulting value, which represented the estimated fair value of our common stock as of December 31, 2011, was \$0.26 per share.

### *Stock Options Granted from January 25, 2012 to September 19, 2012*

Our board of directors granted stock options on January 25, 2012, February 6, 2012, March 7, 2012, June 5, 2012 and September 19, 2012, each having an exercise price of \$0.26 per share, which our board of directors determined to be the fair value of our common stock on each grant date. In addition to the objective and subjective factors discussed above, our board of directors considered input from management and the valuation as of December 31, 2011 in estimating the fair value of our common stock. Our board of directors determined that no significant events or other circumstances had occurred between December 31, 2011 and September 19, 2012 that would indicate there was a change in the fair value of our common stock. Moreover, during the period from December 31, 2011 to the date of the September 2012 awards, overall market conditions, and particularly the market for biopharmaceutical initial public offerings, were not promising. Based on these factors, our board of directors determined that the fair value of our common stock on each of these dates of grant was \$0.26 per share.

### *December 1, 2012 Contemporaneous Common Stock Valuation*

In December 2012, we conducted a contemporaneous valuation of our common stock as of December 1, 2012, using the market approach, specifically the recent transactions method, to determine our enterprise value.

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Our selection of the market approach was based on the recent closing of an extension of the Series D preferred stock financing. We utilized the option pricing method to solve for the equity value which was consistent with the price paid by the Series D preferred investors on November 30, 2012.

In solving for the equity value implied by the Series D preferred stock financing we utilized the option pricing method and the key assumptions were as follows:

- Underlying equity value—Solved for the equity value that was consistent with the price paid for the Series D preferred shares.
- Volatility—We estimated volatility based on guideline publicly traded companies with a term consistent with the timeline to the liquidity event.
- Time to liquidity—We estimated a weighted-average time to a sale event of 2.50 years based on the projected time to significant clinical development events for our drug candidates.
- Risk-free interest rate—We determined the risk-free interest rate based on the yield of a United States Treasury bill with a maturity date closest to the estimated time to a sale event for our stockholders.
- Discounts for lack of marketability—We applied an aggregate 20% discount for lack of control and lack of marketability.

The estimated per share value of our common stock calculated in our valuation as of December 1, 2012 of \$0.27 per share increased from the December 31, 2011 valuation of \$0.26 per share primarily due to the following reasons:

- Second closing of our Series D preferred stock financing occurred on November 30, 2012; and
- NASDAQ Biotechnology Index increased 33% during the period.

These positive factors were partially offset by an increased timing to a liquidity event as a result of delays in obtaining final data from the NSCLC clinical trial.

### *Stock Options Granted from December 7, 2012 to February 3, 2013*

Our board of directors granted stock options on December 7, 2012, December 19, 2012, December 27, 2012, January 4, 2013 and February 7, 2013, each having an exercise price of \$0.27 per share, which our board of directors determined to be the fair value of our common stock on each grant date. In addition to the objective and subjective factors discussed above, our board of directors considered input from management and the valuation as of December 1, 2012 in estimating the fair value of our common stock. Given that we were operating within plan and there were no significant milestones attained in our clinical development program at each of the grant dates, our board of directors determined that no significant events or other circumstances had occurred between December 1, 2012 and February 3, 2013 that would indicate there was a change in the fair value of our common stock during that period.

### *May 31, 2013 Retrospective Common Stock Valuation*

In December 2013, we conducted a retrospective valuation of our common stock as of May 31, 2013, using the hybrid method to value our common stock. Specifically, we used two market approaches, the recent transactions method and guideline initial public offering transactions, and a third scenario, sale below the liquidation preference with no value to the common stock, to estimate the value of our equity. In utilizing the recent transactions method, we utilized the option pricing method to estimate our equity value, which was consistent with the price paid for the Series D preferred shares by investors. In addition, we utilized a direct waterfall analysis to allocate the value to the respective share classes under the guideline initial public offering transactions method. Under the sale below the liquidation preference there is no value allocated to the common

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stock. In each case, we applied probability weightings to the various methodologies based upon our assessment of our prospects of a sale or merger transaction, an initial public offering or a sale below the liquidation preference.

For the retrospective valuation at May 31, 2013, we used the recent transactions method and the guideline initial public offering method to determine the value of our equity under the sale or merger and initial public offering scenarios. The recent transaction method was used to determine our value under a possible sale transaction and the guideline initial public offering method was used to estimate our equity value under the potential initial public offering scenario. There is no value allocated to the common stock under the sale below liquidation preference scenario. The specific facts and circumstances considered by our board of directors in assessing these key valuation assumptions included those noted in the following table:

May 31, 2013 Major Assumptions	Initial Public Offering	Option Pricing Method	Sale Below Liquidation Preference
Probability of scenario	25%	65%	10%
Discount for marketability	10%	10%	N/A
Timeline to liquidity	0.92 yrs	1.75 yrs	N/A
Discount rate—common stock	30%	N/A	N/A
Estimated per share fair value of common stock—before discounts	\$0.92	\$0.31	\$ 0.00

In applying the market approach to estimate our future enterprise value under the initial public offering scenario, as described above, it was assumed that a liquidity event would occur in 0.92 years. Given our development pipeline and the status of our clinical trials, as of the valuation date the selected enterprise value in the initial public offering scenario was based on the pre-money initial public offering market data for transactions between the low and the 25<sup>th</sup> percentile of the observed range. The selected enterprise value contemplated our stage of development, amount of capital raised, depth of clinical candidates and number of partnerships and collaborations in comparison to the initial public offering transactions.

In applying the market approach to estimate our aggregate future enterprise value under the option pricing method scenario, as described above, it was assumed that a liquidity event would occur in 1.75 years. The selected enterprise value utilized in the option pricing method scenario was based on the recent Series D preferred stock financing. The investors paid \$0.83 per share for the Series D preferred stock. We used the back-solve method, a form of the market approach that derives the implied value for one type of equity security from a contemporaneous transaction involving another type of equity security.

As noted above, under the sale below liquidation preference scenario, there is no value allocated to the common stock.

We applied a discount for lack of marketability of 10% under the initial public offering and option pricing method scenarios. We assessed the probabilities of each transaction and assigned a 25% weighting to the initial public offering scenario, 65% to the option pricing method scenario and 10% to the sale below liquidation preference based on our assessment of our development pipeline and market conditions. The resulting value, which represented the estimated fair value of our common stock as of May 31, 2013, was \$0.39 per share.

The estimated per share fair value of our common stock calculated in our valuation as of May 31, 2013 of \$0.39 per share increased from the December 1, 2012 valuation of \$0.27 per share primarily due to the following factors:

- Timing to a prospective liquidity event had decreased since December 1, 2012;
- Increased likelihood of an initial public offering;
- Improved capital market conditions for biotechnology companies, as evidenced by a recent increase in the number of public offerings and their initial public offering valuations;

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- Encouraging preliminary results from the Phase 2 IST of CRLX101 as monotherapy in patients with relapsed ovarian cancer; and
- the NASDAQ Biotechnology Index increased 30% during the period.

### *Stock Option Modifications in April through June 2013*

In April 2013, our board of directors approved the modification of stock options to purchase 1,319,321 shares of our common stock held by certain terminated employees. The modifications extended the post-employment period during which the terminated employees could exercise such options and accelerated vesting for one terminated executive officer. We used the May 31, 2013 retrospective valuation to value the modifications, and accordingly, in connection with the modifications we recorded stock compensation expense of \$92,000.

### *September 30, 2013 Contemporaneous Common Stock Valuation*

In October 2013, we conducted a contemporaneous valuation of our common stock as of September 30, 2013, using the hybrid method to value our common stock. Specifically, we used two market approaches, the recent transactions method and guideline initial public offering transactions, and a third scenario, sale below the liquidation preference with no value to the common stock, to estimate the value of our equity. In utilizing the recent transactions method, we utilized an option pricing method to estimate our equity value. We had recently completed a convertible bridge debt financing in August 2013. The notes issued in the debt financing are convertible into the equity securities of the next qualified financing round or into Series D preferred shares. In utilizing the recent transactions method, we utilized the option pricing method to estimate our equity value, which is based on the price at which the notes would convert into Series D preferred shares. In addition, we utilized a direct waterfall analysis to allocate the value to the respective shares classes under the guideline initial public offering transactions method. Under the sale below the liquidation preference scenario there is no value allocated to the common stock. In each case, we applied probability weightings to the various methodologies based upon our assessment of our prospects of a sale or merger transaction, an initial public offering or the sale below the liquidation preference.

For the contemporaneous valuation at September 30, 2013, we used the recent transactions method and the guideline initial public offering method to determine the value of our equity under the sale or merger and initial public offering scenarios. The recent transaction method was used to determine our value under a possible sale transaction and the guideline initial public offering method was used to estimate the equity value under the potential initial public offering scenario. There is no value allocated to the common stock under the sale below liquidation preference scenario. The specific facts and circumstances considered by our board of directors in assessing these key valuation assumptions included those noted in the following table:

September 30, 2013 Major Assumptions	Initial Public Offering	Option Pricing Method	Sale Below Liquidation Preference
Probability of scenario	50%	40%	10%
Discount for marketability	10%	10%	N/A
Timeline to liquidity	0.58 yrs	1.50 yrs	N/A
Discount rate—common stock	30%	N/A	N/A
Estimated per share fair value of common stock—before discounts	\$ 0.92	\$ 0.29	\$ 0.00

In applying the market approach to estimate our future enterprise value under the initial public offering exit scenario, as described above, it was assumed that a liquidity event would occur in 0.58 years. Given our development pipeline and the status of our clinical trials, as of the valuation date the selected enterprise value in the initial public offering scenario was based on the pre-money initial public offering market data for transactions between the low and the 25<sup>th</sup> percentile of the observed range. The selected enterprise value contemplated our stage of development, amount of capital raised, depth of clinical candidates and number of partnerships and collaborations in comparison to the initial public offering transactions.

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In applying the market approach to estimate our aggregate future enterprise value under the option pricing method scenario, as described above, it was assumed that a liquidity event would occur in 1.50 years. The selected enterprise value utilized in the option pricing method scenario was based on the recent convertible bridge note financing. The bridge note investors may convert the debt at \$0.83 per share for a share of Series D preferred stock. We used the back-solve method to determine our equity.

As noted above, under the sale below liquidation preference scenario there is no value allocated to the common stock.

We applied a discount for lack of marketability of 10% under the initial public offering and option pricing method scenarios. We assessed the probabilities of each transaction and assigned a 50% weighting to the initial public offering scenario, 40% to the option pricing method scenario and 10% to the sale below liquidation preference scenario based on our assessment of our development pipeline and market conditions. The resulting value, which represented the estimated fair value of our common stock as of September 30, 2013, was \$0.52 per share.

The estimated per share fair value of our common stock calculated in our valuation as of September 30, 2013 of \$0.52 per share increased from the retrospective May 31, 2013 valuation of \$0.39 per share primarily due to the following factors:

- Timing to a prospective liquidity event had decreased since May 31, 2013;
- Increased likelihood of an initial public offering;
- Improved capital market conditions for biotechnology companies as evidenced by a recent increase in the number of public offerings and their initial public offering valuations;
- Detail analysis of the NSCLC clinical trial provided evidence of activity for CRLX101 as measured by RECIST, and progression free survival and overall survival in the treatment arm of the study;
- Encouraging early data from the Phase 1b/2 IST of CRLX101 in combination with Avastin in patients with relapsed renal cell carcinoma, and the identification of the maximum tolerated dose for CLRX101 when administered in combination with Avastin in this indication;
- Encouraging early data in the Phase 2 IST of CRLX101 in combination with Avastin in patients with relapsed ovarian cancer, and we confirmed our intention to begin a trial administering CRLX101 in combination with Avastin for platinum-resistant ovarian cancer patients, based on maximum tolerated dose identified in the renal cell carcinoma trial; and
- NASDAQ Biotechnology Index increased 17% during the period.

### *Stock Options Granted on December 13, 2013*

Our board of directors granted stock options on December 13, 2013 having an exercise price of \$0.52 per share, which our board of directors determined to be the fair value of our common stock on each grant date. The per share exercise price determined by our board of directors was supported by the September 30, 2013 valuation, as described more fully above, along with input from management. Our board of directors believed that this was appropriate as we had not selected bankers for an initial public offering, there were no changes to our operating plan and there were no significant milestones completed since September 30, 2013 that would indicate there was a change in the fair value of our common stock.

### *Stock Option Modifications in July through August 2013*

We used the September 30, 2013 contemporaneous valuation to record stock compensation expense of \$14,000 in connection with modifications to stock options held by employees who were terminated in July and

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August 2013. These modifications, which were approved by our board of directors in April 2013, extended the post-employment period during which the terminated employees could exercise stock options that were vested at their respective termination dates.

### *December 31, 2013 Common Stock Valuation*

For the December 31, 2013 contemporaneous valuation, we utilized the hybrid method to value our common stock. Specifically, we used two market approaches, the recent transactions method and guideline initial public offering transactions, and a third scenario, sale below the liquidation preference with no value to the common stock, to estimate the value of our equity. In utilizing the recent transactions method, we utilized an option pricing method to estimate our equity value. We recently completed a convertible bridge debt financing in August 2013. The notes issued in the bridge debt financing are convertible into the equity securities of the next qualified financing round or into Series D preferred shares. In utilizing the recent transactions method, we utilized the option pricing method to estimate our equity value, which was consistent with the price at which the notes issued in the debt financing would convert into Series D preferred shares. In addition, we utilized a direct waterfall analysis to allocate value to the respective shares classes under the guideline initial public offering transactions method. Under the sale below the liquidation preference scenario, there is no value allocated to the common stock. In each case, we applied probability weightings to the various methodologies based upon our assessment of our prospects of a sale or merger transaction or an initial public offering or the sale below the liquidation preference of our common stock.

For the contemporaneous valuation at December 31, 2013, we used the recent transactions method and the guideline initial public offering method to determine the value of our equity under the sale or merger and initial public offering scenarios. The recent transaction method was used to determine our value under a possible sale transaction and the guideline initial public offering method was used to estimate the equity value under the potential initial public offering scenario. There is no value allocated to the common stock under the sale below liquidation preference scenario. The specific facts and circumstances considered by our board of directors in assessing these key valuation assumptions included those noted in the following table

December 31, 2013 Major Assumptions	Initial Public Offering	Option Pricing Method	Sale Below Liquidation Preference
Probability of scenario	75%	20%	5%
Discount for marketability	10%	10%	N/A
Timeline to liquidity	0.33 yrs	1.50 yrs	N/A
Discount rate—common stock	25%	N/A	N/A
Estimated per share fair value of common stock—before discounts	\$ 1.00	\$ 0.29	\$ 0.00

In applying the market approach to estimate our future enterprise value under the initial public offering scenario, as described above, it was assumed that a liquidity event would occur in 0.33 years. Given our development pipeline and the status of our clinical trials, as of the valuation date the selected enterprise value in the initial public offering scenario was based on the pre-money initial public offering market data for transactions between the low and the 25<sup>th</sup> percentile of the observed range. The selected enterprise value contemplated our stage of development, amount of capital raised, depth of clinical candidates and number of partnerships/collaborations in comparison to the initial public offering transactions.

In applying the market approach to estimate our aggregate future enterprise value under the option pricing method scenario, as described above, it was assumed that a liquidity event would occur in 1.50 years. The selected enterprise value utilized in the option pricing method scenario was based on the recent convertible bridge note financing. The bridge note investors may convert the debt at \$0.83 per share for a share Series D preferred Stock. We used the back-solve method to determine our equity.

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As noted above, under the sale below liquidation preference scenario there is no value allocated to the common stock.

We applied a discount for lack of marketability of 10% under the initial public offering and option pricing method scenarios. We assessed the probabilities of each transaction and assigned a 75% weighting to the initial public offering scenario, 20% to the option pricing method scenario and 5% to the sale below liquidation preference scenario based on our assessment of our development pipeline and market conditions. The resulting value, which represented the estimated fair value of our common stock as of December 31, 2013, was \$0.73 per share.

The estimated per share fair value of our common stock calculated in our valuation as of December 31, 2013 of \$0.73 per share increased from the September 30, 2013 valuation of \$0.52 per share primarily due to the following factors:

- Timing to a prospective liquidity event has decreased since September 30, 2013;
- Increased likelihood of an initial public offering;
- Improved capital market conditions for biotechnology companies as evidenced by a recent increase in the number of public offerings and their initial public offering valuations;
- Investment bankers selected to lead the initial public offering;
- Initial public offering organizational meeting was held in December 2013; and
- NASDAQ Biotechnology Index increased 8% during the period.

### *Stock Options Granted in January 2014*

Our board of directors granted stock options on January 10, 2014, January 15, 2014, January 16, 2014, January 22, 2014 and January 27, 2014, each having an exercise price of \$0.73 per share, which our board of directors determined to be the fair value of our common stock on each grant date. In addition to the objective and subjective factors discussed above, our board of directors considered input from management and the valuation as of December 31, 2013 in estimating the fair value of our common stock. Given we had not yet submitted a registration statement for an initial public offering and there were no significant changes to our operating plan, our board of directors determined that no significant events or other circumstances had occurred between December 31, 2013 and January 27, 2014 that would indicate there was a change in the fair value of our common stock during that period.

### **Recent Accounting Pronouncements**

From time to time, new pronouncements are issued by the FASB or other standard setting bodies that may have an impact on our accounting and reporting. We believe that such recently issued accounting pronouncements and other authoritative guidance for which the effective date is in the future either will not have an impact on our accounting or reporting or that such impact will not be material to our financial position, results of operations, and cash flows when implemented.

### **JOBS Act**

We qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;



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- reduced disclosure about our executive compensation arrangements;
- exemption from the non-binding advisory votes on executive compensation, including golden parachute arrangements; and
- exemption from the auditor attestation requirement in the assessment of our internal controls over financial reporting.

Generally, we may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than \$1 billion in annual revenue, we have more than \$700 million in market value of our stock held by non-affiliates or we issue more than \$1 billion of non-convertible debt over a three-year period. We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of certain reduced reporting burdens in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

### **Quantitative and Qualitative Disclosures about Market Risk**

We are exposed to market risk related to changes in interest rates. As of December 31, 2013, we had cash and cash equivalents of approximately \$5.5 million, consisting primarily of investments in United States Treasuries and certificates of deposit. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of United States interest rates, particularly because our investments are in cash and cash equivalents. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 10% change in interest rates would not have a material effect on the fair market value of our investment portfolio.

## BUSINESS

### Overview

We are a clinical-stage oncology-focused company applying our proprietary dynamic tumor targeting platform to develop differentiated therapies. Our nanopharmaceutical product candidates consist of proprietary polymers that are covalently linked to anti-cancer therapeutics, or payloads. We believe these nanopharmaceuticals dynamically target tumors by exploiting the leakiness of new blood vessels in tumors as an entry portal into tumor tissue, followed by active uptake into tumor cells and the sustained release of the anti-cancer payload inside the tumor cells.

Our lead product candidate, CRLX101, is a dynamically tumor targeted nanopharmaceutical in Phase 2 clinical development and has the potential to address an unmet need where existing cancer therapies fail. We believe CRLX101, which contains camptothecin as its anti-cancer payload, is a potent, durable and combinable inhibitor of topoisomerase 1, or topo 1, a commercially validated cancer target, and hypoxia inducible factor, or HIF, a novel target of increasing interest in cancer research. Recent research suggests that HIF-1 $\alpha$  is a master regulator of multiple cancer cell survival pathways. Clinical trials for CRLX101 have been conducted in multiple indications at several sites in over 200 patients. In clinical trials conducted to date, CRLX101 appears to be active and well tolerated as monotherapy and active and combinable with Avastin (bevacizumab), a leading anti-cancer drug. In addition, we believe CRLX101 may be combinable with other anti-cancer therapies. We are pursuing development of CRLX101 in combination with anti-cancer therapies in three ongoing clinical development programs:

- A combination trial with Avastin in Phase 2 in patients with relapsed renal cell carcinoma;
- A two-part clinical trial in Phase 2 in patients with relapsed ovarian cancer—consisting of a single-arm trial of CRLX101 as monotherapy and a single-arm combination trial with Avastin; and
- A combination trial with Xeloda (capecitabine), which is a leading anti-cancer drug, and radiotherapy in Phase 1b in patients with rectal cancer who are being treated through the administration of therapeutic agents prior to surgery. We refer to this form of treatment as neoadjuvant therapy, and we refer to patients who receive neoadjuvant therapy as patients with neoadjuvant rectal cancer.

CRLX301, the second product candidate from our dynamic tumor targeting platform, is a nanopharmaceutical with docetaxel, a microtubule stabilizer, as its anti-cancer payload. Based on observations in preclinical animal tumor models, we believe CRLX301 has the potential to enhance the clinical efficacy, achieve a higher therapeutic index and improve the adverse event profile of Taxotere<sup>®</sup> (docetaxel). We expect to commence clinical trials of CRLX301 by the end of 2014.

In addition to CRLX101 and CRLX301, we have generated additional nanopharmaceuticals using our dynamic tumor targeting platform. We intend to pursue additional product candidate opportunities either by ourselves or in strategic partnerships with pharmaceutical companies to maximize value generation from our platform.

Our nanopharmaceuticals are polymer-based nanoparticles that are covalently linked to anti-cancer payloads. These nanopharmaceuticals form particulate structures that, we believe, dynamically target tumors in a three-step process that differentiates our nanopharmaceuticals from other nanopharmaceutical approaches. First, our nanopharmaceuticals exploit the leakiness of new blood vessels in tumors as an entry portal into tumor tissue. Second, our nanopharmaceuticals are actively taken up by tumor cells and, due to their size, our nanopharmaceuticals are not easily removed from cancer cells. Third, our nanopharmaceuticals provide sustained release of the anti-cancer payload inside the tumor cells. We believe these properties may result in improved efficacy by prolonging drug exposure in tumor cells, thus providing for an improved therapeutic index as compared to the anti-cancer payload alone.

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Due to the dynamic tumor targeting of CRLX101 and the resulting sustained release of its anti-cancer payload, camptothecin, we believe CRLX101 achieves durable inhibition of topo 1, a commercially validated cancer target, and HIF, in particular HIF-1 $\alpha$ , an emerging target that recent research suggests is a master regulator of multiple cancer cell survival pathways. Camptothecin is an inhibitor of topo 1 and HIF-1 $\alpha$  and has shown evidence of strong anti-cancer activity in preclinical tumor models. However, clinical development of camptothecin was discontinued due to unacceptable toxicities. As a result, camptothecin has never been approved for use by the U.S. Food and Drug Administration, or the FDA, or any other regulatory agency. CRLX101 permits the dynamic targeting of camptothecin to tumor cells without causing unacceptable toxicities. In preclinical tumor models, CRLX101 as monotherapy outperformed commercial drug comparators. Moreover, CRLX101 appears to be combinable with other drugs and, in preclinical tumor models, demonstrated additive or synergistic properties when combined with commercial cancer drugs such as Taxol<sup>®</sup> (paclitaxel) and Platinol<sup>®</sup> (cisplatin). In preclinical tumor models, CRLX101 also has demonstrated synergy with vascular endothelial growth factor, or VEGF, inhibitors, such as Avastin, Zaltrap<sup>®</sup> (ziv-aflibercept) and Votrient<sup>®</sup> (pazopanib), and with radiotherapy. We hold issued patents in the United States, Japan and Europe covering the composition of matter of CRLX101 that expire in 2023 and 2024, excluding any potential patent term extension.

Due to the potentially broad applicability of our dynamic tumor targeting platform and CRLX101's apparently favorable adverse event profile observed to date, we believe CRLX101 may have significant clinical utility in several cancer indications, particularly in combination with cancer therapies and with radiotherapy. We are supporting investigator-sponsored Phase 1 and Phase 2 clinical trials of CRLX101 being conducted by leading academic medical centers in the United States. In collaboration with the investigators in these trials, our focus is on tumor types where HIF is up-regulated, topo 1 inhibition is desirable and drug combinations with CRLX101 can be pursued.

Based on CRLX101's inhibition of topo 1 and HIF, as well as its potential synergy with other anti-cancer therapies, we are currently focusing our CRLX101 clinical development program on combinations with cancer therapies in three tumor types: relapsed renal cell carcinoma in combination with Avastin; relapsed ovarian cancer in combination with Avastin; and neoadjuvant rectal cancer in combination with Xeloda plus radiotherapy. The CRLX101 clinical development program includes:

- *Relapsed renal cell carcinoma:* A Phase 1b/2 open-label investigator sponsored trial, or IST, of CRLX101 in combination with Avastin in patients with relapsed renal cell carcinoma is being conducted at the University of Pennsylvania and is expected to expand to Thomas Jefferson University. Based on preliminary results from this trial, we believe that the combination of CRLX101 and Avastin may provide therapeutic benefits to relapsed renal cell carcinoma patients. Specifically, Response Evaluation Criteria in Solid Tumors, or RECIST, responses, as well as encouraging progression free survival, have been achieved in several patients. We believe that the therapeutic benefits observed to date in the trial are due to CRLX101's synergy with Avastin and the resulting durable inhibition of HIF, topo 1 and VEGF. We intend to commence a randomized, well-controlled Phase 2 clinical trial of CRLX101 in combination with Avastin in the second half of 2014.
- *Relapsed ovarian cancer:* A two-part Phase 2 open-label IST of CRLX101 in patients with relapsed ovarian cancer is being conducted at Massachusetts General Hospital and affiliated Harvard teaching hospitals. The first part of the trial, a single-arm trial of CRLX101 as monotherapy, has completed enrollment and met its primary efficacy endpoint. Platinum-resistant ovarian cancer patients are being enrolled in the second part, a single-arm combination trial of CRLX101 and Avastin. Assuming positive results from the second part of the trial, we expect to initiate a randomized pivotal clinical trial of CRLX101 in combination with Avastin in relapsed platinum-resistant ovarian cancer in 2015.
- *Neoadjuvant rectal cancer:* A Phase 1b/2 open-label IST of CRLX101 in combination with chemoradiotherapy, consisting of Xeloda and radiotherapy, in patients with neoadjuvant rectal cancer is being conducted at the University of North Carolina at Chapel Hill and is expected to expand to the

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University of Indiana and Wake Forest University. Assuming favorable results from this Phase 1b/2 trial, we intend to commence a randomized, well-controlled Phase 2 clinical trial of CRLX101 in combination with chemoradiotherapy by the end of 2014.

In 2011, we initiated an open-label, randomized Phase 2 clinical trial of CRLX101 as monotherapy in patients with advanced non-small cell lung cancer, or NSCLC, who had progressed through one or two prior regimens of chemotherapy. The Phase 2 clinical trial, which enrolled 157 patients, failed to meet its primary endpoint of improvement in overall survival of the CRLX101-treated group as compared to the control arm of best supportive care, which performed substantially better than previously well-established best supportive care benchmarks. However, we observed clear evidence of activity for CRLX101 as measured by RECIST responses and observed progression free survival and overall survival comparable to the progression free survival and overall survival observed in approved cancer therapies in this setting. We believe that this trial of CRLX101 as monotherapy (1) suggests CRLX101 is active in a refractory solid tumor patient population and (2) reinforces CRLX101's apparently favorable safety profile.

We expect to advance our second product candidate, CRLX301, into a clinical trial by the end of 2014. CRLX301's anti-cancer payload, docetaxel, is a microtubule stabilizer that is extensively used in clinical practice and is approved by the FDA for the treatment of NSCLC, squamous cell carcinoma of the head and neck, hormone refractory prostate cancer, breast cancer and adenocarcinoma. Based on observations in preclinical tumor models, we believe that CRLX301 has the potential to enhance the clinical efficacy and improve the adverse event profile of docetaxel. We hold issued patents in the United States, Japan and Europe covering the composition of matter of CRLX301 that expire in 2023 and 2024, excluding any potential patent term extension.

In addition to CRLX101 and CRLX301, we have generated additional nanopharmaceuticals using our dynamic tumor targeting platform. We believe that our platform can be used with a wide range of small and large molecule payloads. This provides us with the opportunity to pursue additional product candidate opportunities either by ourselves or in collaborations with pharmaceutical companies using active anti-cancer payloads that would benefit from enhanced tumor targeting, sustained tumor cell drug exposure and reduced systemic drug exposure.

If approved, we expect to commercialize our product candidates in the United States directly with a focused commercialization organization. We expect to seek one or more strategic partners for commercialization of our product candidates outside the United States.

## **Our Strategy**

Our goal is to be a leader in the discovery, development and commercialization of nanopharmaceuticals for the treatment of patients with inadequately treated forms of cancer. Key elements of our strategy to achieve this goal are:

- *Advance the clinical development of our lead product candidate, CRLX101, in multiple tumor types.* Based on confirmatory signals observed in the ongoing relapsed renal cell carcinoma clinical trial, we plan to initiate a randomized Phase 2 clinical trial of CRLX101 in combination with Avastin in this indication in the second half of 2014. We expect to initiate a randomized Phase 2 clinical trial of CRLX101 in combination with chemoradiotherapy in neoadjuvant rectal cancer by the end of 2014. In addition, we expect to initiate a randomized pivotal clinical trial of CRLX101 in combination with Avastin in relapsed platinum-resistant ovarian cancer in 2015, assuming continued confirmatory signals from ongoing CRLX101 clinical trials.
- *Advance our second product candidate, CRLX301, into clinical development by the end of 2014.* We expect to initiate a Phase 1 clinical trial of CRLX301 by the end of 2014. Assuming we are successful in establishing a safe maximum tolerated dose in the Phase 1 trial, we plan to advance CRLX301 into Phase 2 development.

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- *Leverage our platform to discover and develop a proprietary pipeline of highly differentiated product candidates with small molecule anti-cancer payloads.* Using our dynamic tumor targeting platform, we have created two product candidates, CRLX101 and CRLX301, with small molecule anti-cancer payloads. We have used our platform to create additional nanopharmaceuticals, and we intend over the longer term to develop additional product candidates from the platform.
- *Leverage our platform beyond our proprietary pipeline to enter into strategic partnerships for the development of product candidates.* We believe that our platform can be used with a wide range of small and large molecule payloads, such as RNA. While our focus is on oncology, our preclinical data demonstrates that our platform may also be applicable in certain inflammatory diseases. We plan to explore the possibility of entering into partnerships with companies that have proprietary small or large molecule payloads targeting oncology or inflammation indications. We envision selective partnerships with pharmaceutical companies, in which we would leverage the partner's expertise, in combination with our platform, to generate novel nanopharmaceuticals incorporating the partner's approved therapeutic or development candidate.
- *Build core capabilities that allow us to commercialize our products in the United States.* In order to maximize the value of our product candidates, if approved, we expect to commercialize our products in the United States with a focused commercialization organization and to seek one or more strategic partners for commercialization outside the United States.

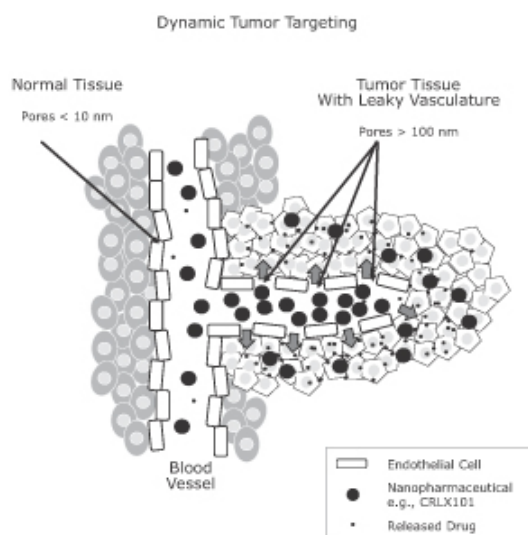
### **Our Approach to Developing Dynamically Tumor Targeted Nanopharmaceuticals**

Our proprietary dynamic tumor targeting platform consists of two technologies: (1) our cyclodextrin polymer containing nanopharmaceutical, or CDP, technology is primarily used for creating nanopharmaceuticals that contain small molecules such as camptothecin in the case of CRLX101 and docetaxel in the case of CRLX301 and (2) our polymeric nanopharmaceutical, or PNP, technology is primarily used for creating nanopharmaceuticals that contain large molecules such as siRNA.

We use both technologies to create nanopharmaceuticals that use a covalent linker to attach an anti-cancer payload to a nanoparticle backbone. The linker determines the release speed of the anti-cancer payload from the nanoparticle backbone. After the anti-cancer payload is released from the nanoparticle backbone, the nanoparticle backbone disassembles into its component polymer strands. The linker and polymer strands in CRLX101 and CRLX301—cyclodextrin, polyethylene glycol, cysteine and glycine—have been extensively used in human pharmaceuticals or are part of humans' natural metabolism. Our nanopharmaceuticals are too large to be readily eliminated from the bloodstream, but the polymer strands are small enough to be eliminated by the kidneys into the urine. The released anti-cancer payload follows its own metabolic pathway.

#### *Dynamic Tumor Targeting*

We believe our dynamic tumor targeting exploits the leaky vasculature present in new blood vessels essential for tumor growth and results in selective uptake of the nanopharmaceutical and sustained release of the nanopharmaceutical's anti-cancer payload into tumor cells. Based on our preclinical studies and the CRLX101 clinical trials, we believe dynamic tumor targeting involves a three-step process, as described and illustrated below, each of which contributes to the achievement of desirable anti-cancer payload exposure in tumors and the reduction of undesirable anti-cancer payload exposure in normal tissue.



1. *Tumor targeting via leaky vasculature.* After intravenous infusion, the nanopharmaceuticals circulate in the bloodstream. In contrast to typical small molecule drugs, once in the bloodstream, our nanopharmaceuticals are too large to be rapidly eliminated by filtration in the kidneys and to escape from the bloodstream into normal tissue. However, they are small enough to exploit the leaky vasculature found in the immature blood vessels of growing tumors as a selective entry portal into tumor tissue. Generally, pore sizes of normal tissue are less than ten nanometers, and pore sizes of tumor tissue are greater than 100 nanometers. Our CDP-based nanopharmaceuticals are typically between 20 and 40 nanometers in diameter, and our PNP-based nanopharmaceuticals are typically between 60 and 100 nanometers in diameter. As tumors grow, they stimulate the formation of new, immature blood vessels, the inner surfaces of which are less densely lined by endothelial cells as compared to mature blood vessels. As a result, immature blood vessels of growing tumors have larger pores that confer leakiness.

CRLX101 has a relatively low systemic distribution. A compound's volume of distribution refers to the fluid volume that would be required to contain the amount of drug present in the body at the same concentration as in the plasma, with higher volume of distribution values indicating more extensive distribution into tissue. In human patients, the volume of distribution of CRLX101 is approximately 2.4 liters. In contrast, in human patients, the volume of distribution of Camptosar® (irinotecan), an analog of camptothecin approved for the treatment of metastatic colon cancer, is approximately 263 liters, and the volume of distribution of Hycamtin (topotecan), an analog of topotecan approved for the treatment of ovarian, cervical and small cell lung cancer, is approximately 130 liters. This low systemic distribution of CRLX101 spares key organ systems from extensive drug exposure. Our nanopharmaceuticals are designed to be stealthy, meaning they are not readily detected by the body's immune cells and do not readily produce an immune response. This results in slow metabolism and long systemic circulation, allowing our nanopharmaceuticals to penetrate from the bloodstream into tumors via the leaky vasculature.

2. *Transport into tumor cells.* Once inside the tumor, tumor cells actively transport our nanopharmaceuticals into the interior of tumor cells, with macropinocytosis acting as a mechanism of uptake. Macropinocytosis is a cellular uptake mechanism that allows small particles to be transported into cells. It is induced by the tumor's rapid growth and ensuing demand for cellular building blocks. Macropinocytosis is up-regulated in tumor cells, and CRLX101 exploits this feature to drive active uptake of the nanopharmaceutical and its anti-cancer payload. Following their entry into the cancer cells, we believe our nanopharmaceuticals, due to their size, are not easily removed from cancer cells by efflux pumps. Efflux is the process by which toxic substances are moved out of the cell and which confers tumor resistance against anti-cancer agents.

3. *Sustained release of anti-cancer payload from within tumor cells.* Since the anti-cancer payload is covalently linked to the polymer of the nanopharmaceutical, the anti-cancer payload has to be cleaved from the polymer to be active. We believe the cleavage of the linker connection between the anti-cancer payload and the nanopharmaceutical occurs primarily by hydrolysis and therefore is affected by pH. Typically, the pH level in tumors is lower than in the bloodstream, which further slows the cleavage of the linker and thereby prolongs the release of the anti-cancer payload within tumor cells. We believe sustained release contributes to enhanced anti-tumor activity. In rapidly proliferating cells, such as growing tumor cells, the cell replication cycle takes approximately 24 hours to complete, and the S-phase of the cell replication cycle, during which new DNA is synthesized, lasts for approximately five to eight hours. Many chemotherapeutics, including the camptothecin class, interfere with DNA synthesis during the S-phase, rendering cells more susceptible to inhibition if they are in S-phase and less susceptible to inhibition if they are not in S-phase. Since cells enter the cell replication cycle independently of each other, at any given time not all cells are susceptible to inhibition by an anti-cancer therapy that acts during the S-phase.

Unless sustained drug concentrations in tumors can be achieved for the entire duration of the replication cycle, the anti-cancer agent will only kill the cells that are in a susceptible phase while drug levels are above the minimum therapeutic threshold, thus allowing the replication and escape of tumor cells during intervals of low drug levels in tumors. For example, topotecan has a terminal half-life, which is the time required for the drug concentration to reach half of its original value, of two to three hours in humans, whereas CRLX101 has a terminal half-life of approximately 28 hours, covering the entire duration of a typical cell replication cycle. Therefore, the third step of dynamic tumor targeting leverages the enrichment of the nanopharmaceuticals within the tumor cells by releasing the payload in a sustained fashion to achieve durable drug concentrations for the entire duration of a typical cell replication cycle.

In each of our preclinical mouse tumor models, our nanopharmaceutical resulted in increased anti-cancer therapeutic benefit compared to the anti-cancer payload alone, which we believe was achieved through targeted delivery and sustained release of a greater amount of anti-cancer payload to tumor cells. In two gastric patients, we had the ability to obtain differential post-therapy biopsies of tumor tissue and adjacent normal tissue. These patient biopsies, taken between 24 and 48 hours after a single dose of CRLX101 was administered, indicated that camptothecin was present in the tumor tissue, and very little camptothecin was present in the adjacent normal tissue. These human data support our belief that our platform achieves higher drug concentrations in tumors compared to normal tissue. In addition, we believe that the safety record observed with our lead drug candidate, CRLX101, across more than 200 cancer patients, can be explained by the targeted delivery of the anti-cancer payload and the sparing of key organ systems from extensive drug exposure.

#### *Application of the Platform*

Our platform is applicable to both small and large molecule payloads. It can be applied in oncology, and we believe it may also be applied in certain types of inflammatory diseases where leaky vascular occurs.

We have created nanopharmaceuticals with a variety of small molecule payloads, including camptothecin, docetaxel, Jevtana® (cabazitaxel), Gemzar® (gemcitabine), Trexall® (methotrexate) and Xeljanz® (tofacitinib). We select the small molecule payload based upon several factors, including our ability to conjugate the payload to our polymer, the biological rationale for prolonging circulation and providing sustained release of the payload, and a relatively high potency of the payload. As discussed below, in preclinical testing, our nanopharmaceuticals incorporating small molecule payloads generally show improved pharmacokinetics, activity and tolerability as compared to the payload alone. We intend to develop nanopharmaceuticals alone and potentially in collaboration with partners.

In addition to creating nanopharmaceuticals with small molecule payloads, we have used our platform to create nanopharmaceuticals with large molecule payloads. We have conducted proof of principle experiments to demonstrate that our platform may be able to deliver compounds into tumor cells that are metabolically unstable and would be unable to penetrate tumor cells on their own, such as siRNA, miRNA or mRNA, and that benefit

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from more selective targeting into tumors, improved uptake into tumor cells and sustained release within tumor cells. Based on these experiments, we believe our platform has the potential to address the delivery challenges, particularly into tumors, of larger and metabolically unstable molecules.

If our platform is able to improve RNA delivery into tumor cells, we believe this would be valuable to companies that are pursuing RNA-based therapeutic approaches in oncology. We do not have the expertise to identify, select, secure and manufacture proprietary anti-cancer RNAs that would be delivered using our platform. Accordingly, we do not intend to focus our business on RNA-based therapeutic approaches, and we would seek to explore this aspect of our platform in collaboration with companies that have expertise in RNA-based therapeutic approaches.

In the future, we may expand beyond anti-cancer therapies to capitalize on the additional opportunities that our platform affords. As an example, in inflammatory diseases our nanopharmaceuticals may offer clinical advantages. Like tumor tissues, in certain inflammatory diseases the pores of blood vessels can become enlarged as part of the inflammatory process. We believe our platform may prove useful in inflammatory diseases characterized by leaky vasculature. While we do not intend to focus our business on inflammatory diseases, this aspect of our platform may afford us with future expansion opportunities by pursuing anti-inflammatory opportunities through collaborations with companies that have expertise in inflammation.

## Product Pipeline

Our current development stage pipeline consists of CRLX101 and CRLX301. As described in more detail below, we are pursuing clinical development of CRLX101 in three lead indications, and we intend to begin clinical development of CRLX301 by the end of 2014.

Product Candidate	Indication	Stage	Design of Ongoing Clinical Trials and Comments	Planned Trials
CRLX101	Relapsed Renal Cell Carcinoma	Phase 2	<ul style="list-style-type: none"> <li>•CRLX101 in combination with Avastin</li> <li>•Single-arm, open-label Phase 1b/2 trial that has enrolled 14 of 22 patients</li> <li>•Established Phase 2 dose at 15mg/m<sup>2</sup> for CRLX101 and 10 mg/kg for Avastin</li> <li>•3 of first 9 evaluable patients showed RECIST partial responses</li> </ul>	Randomized Phase 2 trial of CRLX101 in combination with Avastin that we expect to commence in second half of 2014
	Relapsed Ovarian Cancer	Phase 2	<ul style="list-style-type: none"> <li>•Part 1: CRLX101 as monotherapy <ul style="list-style-type: none"> <li>•Single-arm, open-label Phase 2 trial that is fully enrolled with 29 patients</li> <li>•Met primary efficacy and safety endpoints with two patients still being treated</li> </ul> </li> <li>•Part 2: CRLX101 in combination with Avastin <ul style="list-style-type: none"> <li>•Single-arm, open-label Phase 2 trial of CRLX101 in combination with Avastin with two of 43 patients enrolled</li> <li>•Avastin is being provided by Genentech for this study</li> </ul> </li> </ul>	Randomized pivotal trial of CRLX101 in combination with Avastin that we expect to commence in 2015
	Neoadjuvant Rectal Cancer	Phase 1b	<ul style="list-style-type: none"> <li>•CRLX101 in combination with Xeloda and radiotherapy</li> <li>•Single-arm, open-label Phase 1b/2 trial that will enroll up to 53 patients with first patient expected to be enrolled in early 2014</li> </ul>	Randomized Phase 2 trial of CRLX101 in combination with Xeloda and radiotherapy that we expect to commence by end of 2014
CRLX301	Solid Tumors	Preclinical	<ul style="list-style-type: none"> <li>•GLP toxicology studies complete</li> <li>•GMP manufacturing underway</li> </ul>	Phase 1/2a trial that we expect to commence by end of 2014



## **CRLX101**

CRLX101 is a dynamically tumor targeted nanopharmaceutical that is administered intravenously. It includes a cyclodextrin containing polymer to which camptothecin is covalently linked. We have demonstrated in preclinical studies that CRLX101 is a potent, durable and combinable inhibitor of topo 1 and HIF. We believe that the properties of CRLX101 could translate into substantial benefits for patients. We are focusing the clinical development of CRLX101 on cancer indications in which we expect the durable inhibition of topo 1 and HIF, in combination with other cancer treatments, to lead to differentiated efficacy. Initially, we are focusing on combinations with VEGF inhibitors or chemoradiotherapy. Accordingly, we are currently developing CRLX101 in combination with Avastin in relapsed renal cell carcinoma and relapsed ovarian cancer and in combination with Xeloda and radiotherapy in neoadjuvant rectal cancer.

### **Preclinical Efficacy, Potency and Selectivity of CRLX101**

Camptothecin is a natural product and a potent inhibitor of topo 1. Camptothecin can exist in two forms: an active lactone form that inhibits topo 1, and an inactive carboxylate form. In human plasma, camptothecin is rapidly converted from its active form to its inactive form. This rapid conversion was not appreciated when camptothecin was originally developed, and in clinical trials patients were dosed until unacceptable toxicities of hemorrhagic cystitis and bone marrow suppression were observed. As a result, camptothecin has never been approved for use by the FDA or any other regulatory agency. To address the issue of rapid conversion of camptothecin to its inactive form, CRLX101 covalently binds camptothecin in its active lactone form to a polymer system that protects camptothecin from metabolism in the plasma, drives delivery of the active form of camptothecin into tumors and tumor cells and minimizes systemic exposure and toxicity related to camptothecin. Within the tumor cells, CRLX101 releases the active form of camptothecin, which can exert its anti-cancer effects.

Topo 1 is an essential enzyme required for DNA replication and transcription. In the nucleus, DNA exists as a supercoiled double helix. Topo 1 cuts one DNA strand of the double helix to allow the DNA to uncoil such that the enzyme complexes that drive DNA replication and transcription can access the DNA template. Once these processes are complete, topo 1 re-ligates the DNA back into its super-coiled form. Camptothecin and its analogs, irinotecan and topotecan, bind to the topo 1 DNA complex and prevent the re-ligation of the DNA. The accumulation of unrepaired DNA breaks causes the cell to undergo apoptosis, or cell death. Since tumor cells replicate and transcribe their DNA more frequently than normal cells, they require frequent re-ligation of broken DNA strands and are more sensitive to topo 1 inhibitors than normal cells.

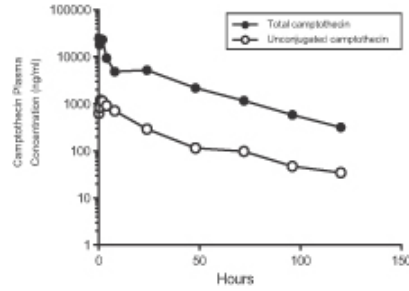
The FDA has approved topotecan for the treatment of ovarian cancer, cervical cancer and small cell lung cancer, and irinotecan for the treatment of metastatic colorectal cancer. Compared to CRLX101, both of these drugs have shorter half-lives, more extensive toxicities and lack of tumor targeting. However, topotecan and irinotecan clinically and commercially validate the inhibition of topo 1 as an important anti-cancer target.

CRLX101 demonstrates a linear and predictable pharmacokinetic, or PK, profile across a number of animal species and in humans. There is little PK variability between doses, between patients and between single and multi-dose administration in patients.

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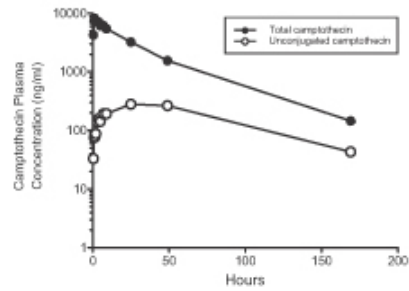
We conducted a preclinical study in which rats were dosed with 2.59 mg/kg of CRLX101, and the concentrations of camptothecin, total and unconjugated, meaning after its release from CRLX101, were measured using liquid chromatography/tandem mass spectrometry. As illustrated in the graph below, plasma concentration of camptothecin in the rats following dosing of CRLX101 declined gradually and lacked a rapid distribution phase. Specifically, the half-life of total camptothecin in the rats in this study was 24 hours following a single dose of CRLX101, whereas the published half-life of camptothecin in rats is only 1.3 hours. Consistent with this prolonged half-life, the clearance of total camptothecin in the study was 1.2 milliliters per hour following a single dose of CRLX101, whereas the published clearance of camptothecin in rats is 1,534 milliliters per hour. The volume of distribution for CRLX101 in rats in the study was 36 milliliters following a single dose of CRLX101, whereas the published volume of distribution of camptothecin in rats is 1,306 milliliters, suggesting less camptothecin is distributed in systemic tissue following a single dose of CRLX101 as compared to camptothecin. The graph below shows the plasma concentration of camptothecin in rats, total and unconjugated, over time following administration of a single dose of CRLX101.

**CRLX101 Rat Pharmacokinetic Study**



The results from this pharmacokinetic rat study, suggesting long half-life, slow clearance and low volume of distribution, were consistent with the results of our Phase 1/2a clinical trial of CRLX101 in advanced multiply pre-treated solid tumor malignancies, in which human patients were dosed with 15 mg/m<sup>2</sup> of CRLX101. In the Phase 1/2a trial, blood was drawn from patients after their first dose of CRLX101 and analyzed for total and unconjugated camptothecin using liquid chromatography/tandem mass spectrometry. The half-life of CRLX101 following the first dose of CLRX101 in human patients in the trial was 28 hours, the clearance was 91 milliliters per hour and the volume of distribution was 2418 milliliters. The graph below shows the plasma concentration of camptothecin in human patients in the trial, total and unconjugated, over time following administration of a single dose of CRLX101.

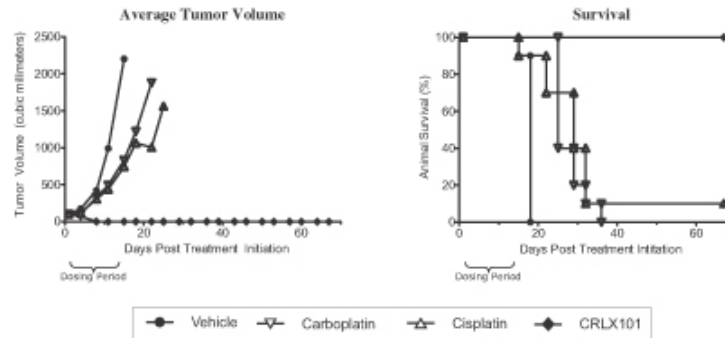
**CRLX101 Human Pharmacokinetic Data**



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We have conducted preclinical testing of CRLX101 as monotherapy in over 15 xenograft tumor models, which is a model in which human tumor tissue is transplanted into animals, encompassing colorectal cancer, gastric cancer, head and neck cancer, lymphoma, ovarian cancer, pancreatic cancer, NSCLC, renal cancer, small cell lung cancer and triple negative breast cancer. In our xenograft tumor model studies, CRLX101 demonstrated superiority over commercial comparator drugs as measured by median survival, tumor shrinkage and tumor growth delay. In these tumor model studies, the commercial drugs were administered at their respective optimal doses and dosing schedules, as determined by the literature. In several of these tumor model studies, CRLX101 achieved complete tumor eradication, which was not achieved by the commercial drugs tested in these models.

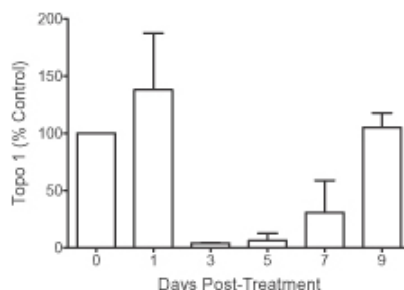
The following graphs illustrate the tumor volume results and post-treatment survival rates in a preclinical study comparing CRLX101 to Paraplatin® (carboplatin) and cisplatin, which are platinum-based chemotherapeutic agents, in an ovarian xenograft model. In this study, we treated nude mouse xenograft models in which human A2780 ovarian cancer tumor cells were implanted subcutaneously in mice and allowed to establish tumors. We administered 10 mg/kg of CRLX101, 7 mg/kg of cisplatin, 100 mg/kg of carboplatin or saline, which we also refer to as the vehicle, by intravenous infusion. Each dose group consisted of ten animals and all mice were treated weekly for three weeks. All dose levels were close to the maximum tolerated dose in this model. CRLX101, carboplatin and cisplatin all delayed tumor growth and improved survival rates as compared to the saline-treated mice, however, as compared to both carboplatin and cisplatin, the CRLX101-treated mice displayed much higher tumor regression, and 100% tumor-free survivors at the conclusion of the study. These results are illustrated in the graphs below.



Our preclinical testing of CRLX101 in combination therapy in multiple xenograft models and one orthotopic model, which is a model in which a tumor is grafted into the animal in its natural location, encompassing renal cell carcinoma, ovarian cancer, head and neck cancer, and triple negative breast cancer, demonstrated additive or synergistic effect when CRLX101 was combined with chemotherapy, platinum, VEGF inhibitors or radiotherapy.

We conducted a preclinical study in which a single 6 mg dose of CRLX101 reduced available topo 1 protein for at least one week. We treated 18 nude mouse xenograft models (three per time point) in which human NCI-H1299 non-small cell lung cancer tumor cells were implanted subcutaneously in mice and allowed to establish tumors. We administered a single dose of 6 mg/kg CRLX101 or saline (vehicle) to the control group and collected tumors at various time points, including one, three, five, seven and nine days after treatment using western blot analysis. Tumors were flash-frozen and topo 1 protein levels were measured and calculated as a percentage of topo 1 protein levels in saline-treated mice. As shown in the graph below, a single 6 mg/kg dose of CRLX101 reduced available topo 1 protein, and topo 1 protein recovered to baseline levels by nine days after treatment.

#### Topo 1 Protein in Tumors After CRXL101 Treatment

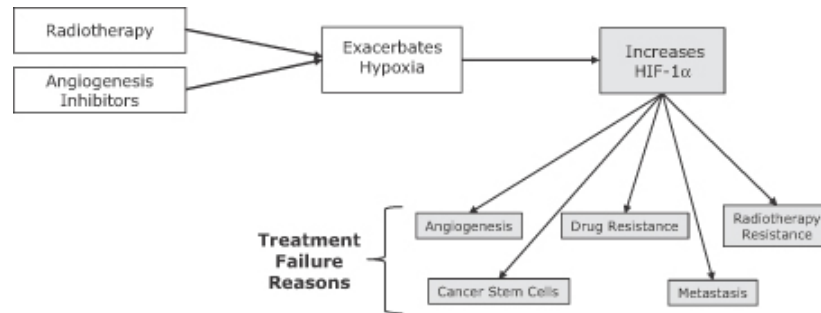


In addition to inhibiting topo 1, CRLX101 is a potent, durable and combinable inhibitor of HIF-1a and HIF-2a protein expression. The compounds in the camptothecin compound family, including camptothecin and topotecan, have been described as inhibitors of HIF-1a in the past. However, the literature suggests that to achieve durable inhibition of HIF-1a, sustained concentrations of camptothecin must be achieved within tumor cells. Due to its short half-life, low tumor targeting and high toxicities, topotecan cannot effectively achieve durable HIF-1a inhibition.

HIF-1a has recently become a target of increasing interest in cancer research. The literature on the subject has grown substantially and, as summarized in a review paper published in *Nature Reviews Clinical Oncology* in 2012, many believe that HIF-1a is a master regulator for many cancer cell survival pathways. When cancer cells proliferate, they can become starved of oxygen, or hypoxic, as tumor growth outpaces the growth of new blood vessels. The lack of oxygen can be exacerbated when new blood vessel formation is inhibited by anti-angiogenesis drugs, such as Avastin, Zaltrap and Votrient, or as a consequence of radiotherapy. Under hypoxic conditions, the normal degradation of HIF-1a slows down, thus leading to a buildup of HIF-1a. According to the *Nature Reviews Clinical Oncology* paper, independent researchers have demonstrated that the buildup of HIF-1a in turn up-regulates cancer cell survival pathways such as angiogenesis, drug resistance, radiotherapy resistance, cancer stem cell formation and metastasis. Cancer stem cells are associated with therapy resistance and cancer metastasis. While anti-angiogenesis drugs can achieve impressive tumor shrinkage and progression free survival benefits in patients, they often fail to improve overall survival. This lack of consistent correlation of tumor response to survival following treatment with anti-angiogenesis drugs may be ascribed to hypoxia-induced up-regulation of HIF-1a and the consequent triggering of cancer cell survival pathways that permit a sub-population of cells to survive treatment and regrow the tumor in a more aggressive form.

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The graphic below illustrates the role of HIF-1 $\alpha$  in up-regulating cancer cell survival pathways in hypoxic conditions in tumor cells, which are exacerbated by radiotherapy and angiogenesis inhibitors, such as Avastin, Zaltrap and Votrient.



HIF-1 $\alpha$  may be a major factor in explaining why oxygen-deprived tumors can survive and trigger the formation of heterogeneous, resistant and distant tumors. Therefore, HIF-1 $\alpha$  has emerged as an important target for cancer research. To effectively inhibit HIF-1 $\alpha$ , however, we believe durable target inhibition is required. Topotecan and irinotecan have been shown to inhibit HIF-1 $\alpha$  only transiently and metronomic dosing of topotecan and irinotecan is believed to provide a more durable inhibition of HIF-1 $\alpha$ , but these dosing regimens have not been shown to be clinically feasible due to excessive toxicity encountered at the approved doses of these drugs. To our knowledge, there is no other durable and tumor targeted inhibitor of HIF-1 $\alpha$  currently on the market or in advanced clinical development, thus making CRLX101 unique in this respect. We expect that the simultaneous inhibition of topo 1 and HIF-1 $\alpha$  by CRLX101 could lead to a significant clinical benefit, particularly if combined with anti-cancer therapies that are known to create hypoxia and up-regulate HIF-1 $\alpha$ .

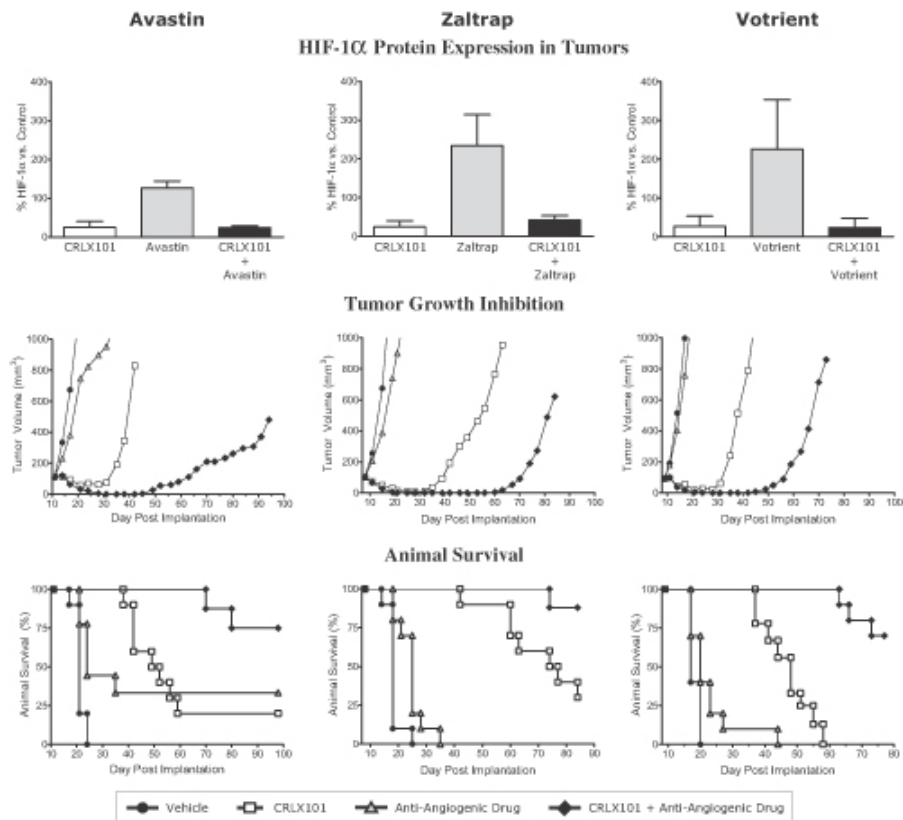
Not only have we shown that CRLX101 inhibits HIF-1 $\alpha$  in preclinical tumor models, but we have also demonstrated that it is synergistic with Avastin in an ovarian xenograft model. We believe that this synergy is at least partly caused by the ability of CRLX101 to inhibit the up-regulation of HIF-1 $\alpha$  caused by anti-angiogenic therapy. We have further confirmed this synergy in a highly metastatic ovarian cancer orthotopic tumor model, as well as in a triple-negative breast cancer orthotopic tumor model. We have also observed the synergy of CRLX101 with other VEGF inhibitors such as Votrient and Zaltrap.

We have conducted animal tumor model studies comparing CRLX101 to certain leading anti-angiogenesis drugs and the combination of CRLX101 and these anti-angiogenesis drugs. In these studies, we treated nude mouse xenograft models in which human A2780 ovarian cancer tumor cells were implanted subcutaneously in mice and allowed to establish tumors. We administered 5 mg/kg CRLX101 weekly by intravenous infusion alone or in combination with one of three different antiangiogenic drugs: Avastin, Zaltrap or Votrient. Avastin was dosed intravenously at 5 mg/kg twice per week. Zaltrap was dosed intraperitoneally at 25 mg/kg twice per week. Votrient was dosed orally at 150 mg/kg daily. Vehicle-treated mice were dosed with saline. Each dose group consisted of ten animals. We administered a CRLX101 dose level that was half the maximum-tolerated dose so that we could compare the effect of the applicable CRLX101 combination to CRLX101 as monotherapy. All other dose levels were the maximum effective dose in this model, as indicated by the literature. For the analysis of HIF-1 $\alpha$  in tumors, mice were dosed for ten days, and three days following the final dose tumors were flash-frozen and HIF-1 $\alpha$  protein levels were measured via western blot analysis, quantified using infrared fluorescence detection, normalized to actin levels and compared to HIF-1 $\alpha$  protein levels from saline-treated mice. For the survival analysis, mice were dosed for three weeks, tumors were measured using calipers twice per week, and each animal was euthanized at the earlier of the time when its tumor reached a volume of 2,000 cubic millimeters or the end of the study.

In these animal tumor model studies:

- HIF-1a protein expression was significantly up-regulated in the presence of each tested anti-angiogenesis drug;
- HIF-1a protein expression was significantly down-regulated when exposed to a low dose of CRLX101;
- when CRLX101 was combined with any of the tested anti-angiogenesis drugs, HIF-1a protein expression was down-regulated compared to control, thus confirming that the CRLX101 down-regulation can counteract the HIF-1a protein expression up-regulation normally produced by these anti-angiogenesis drugs alone; and
- the combination of a low dose of CRLX101 with the anti-angiogenesis drugs was synergistic and resulted in markedly longer animal survival than either drug by itself.

These HIF-1a protein expression and survival rate results are illustrated in the graphs below.



We have achieved similar results in a preclinical study of the effect on cancer stem cells of exposure to CRLX101 alone and CRLX101 in combination with Avastin. In this study, we treated nude mouse xenograft models in which human SUM159 triple-negative breast cancer tumor cells were implanted orthotopically in mice and allowed to establish tumors. We administered 6 mg/kg of CRLX101 weekly by intravenous infusion alone or in combination with Avastin. Avastin was dosed intravenously at 5 mg/kg twice per week. Each dose group consisted of 20 or more mice. We administered a CRLX101 dose level that was half the maximum-tolerated dose so that we could compare the effect of the CRLX101-Avastin combination to CRLX101 as monotherapy. The

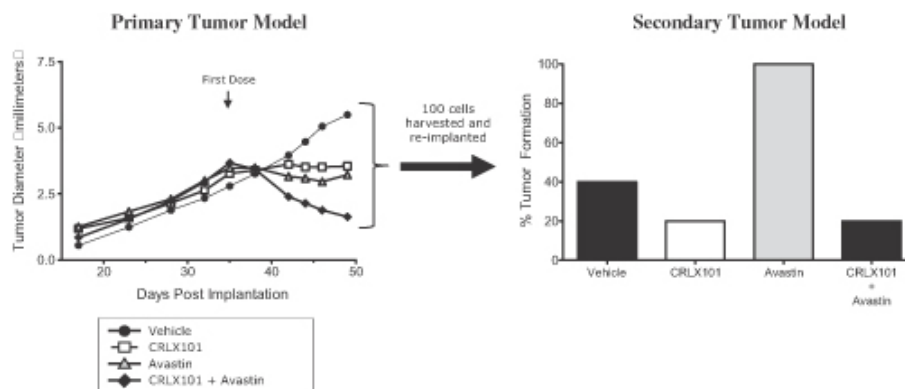
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Avastin dose level was close to the maximum effective dose in this model, as indicated by the literature. Vehicle-treated mice were dosed with saline. Mice in the primary tumor group were dosed for two weeks and tumor volume was measured. As can be observed in the primary tumor growth plot below, CRLX101 as monotherapy and Avastin as monotherapy each resulted in some tumor growth inhibition, and the combination of CRLX101 and Avastin resulted in increased tumor growth inhibition. At the end of these two weeks, tumors were extracted and 100 tumor cells were implanted orthotopically into new, untreated mice. This secondary group of mice was observed for 90 days without treatment, and the percentage of these mice that grew new tumors is plotted in the graph below as the percentage of tumor formation. Tumors that are enriched for cancer stem cells in the primary tumor model are more likely to grow new tumors in the secondary tumor model, that is, tumors enriched for cancer stem cells have a greater tumor-initiating capacity, and tumors that have lower numbers of cancer stem cells in the primary tumor model will have a lower tumor-initiating capacity.

In these cancer stem cell functional experiments:

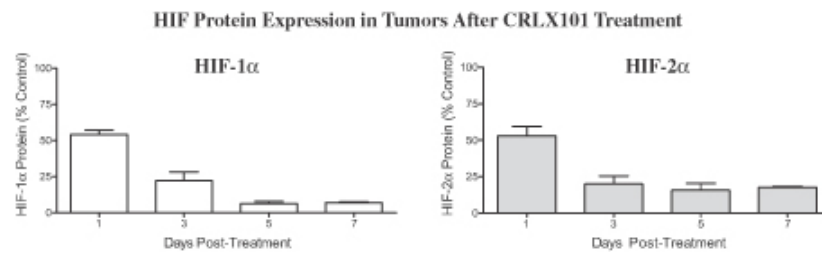
- pre-treatment with CRLX101 led to a reduction in tumor-initiating capacity, consistent with a reduction in the number of cancer stem cells in the primary tumors;
- pre-treatment with Avastin led to greater tumor-initiating capacity compared to control, consistent with an increase in the number of cancer stem cells in the primary tumors; and
- pre-treatment with a combination of CRLX101 and Avastin led to a reduction in the tumor-initiating capacity compared to Avastin treatment alone, thus demonstrating that CRLX101 may reduce the number of cancer stem cells in primary tumors induced by Avastin pre-treatment.

The primary and secondary tumor model results from these cancer stem cell functional experiments are illustrated in the graphs below.



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In addition to inhibiting HIF-1a, CRLX101 also appears to durably inhibit HIF-2a. In a preclinical study, we treated nude mouse xenograft models in which human HCT-116 colorectal cancer tumor cells were implanted subcutaneously in mice and allowed to establish tumors. We administered a single dose of 6 mg/kg CRLX101 or saline (vehicle) to the control group and collected tumors at four different time points: one, three, five and seven days after treatment using western blot analysis. Tumors were flash-frozen and HIF-1a and HIF-2a protein levels were measured via western blot analysis, quantified using infrared fluorescence detection, normalized to actin levels and calculated as a percentage of HIF protein levels in saline-treated mice. As shown in the graph below, in each case, a single 6 mg/kg dose of CRLX101 reduced HIF-1a by over 90%, and reduced HIF-2a by approximately 80% in tumor tissue, in each case compared to control beginning three days after treatment and continuing for as long as one week.



Radiotherapy is frequently used for the treatment of solid tumor malignancies that have not extensively metastasized and are accessible, and thus a radiation beam can be deployed with the goal of destroying the tumor. For example, rectal cancer and head and neck cancers are often treated with radiotherapy. Radiotherapy causes single strand DNA breaks in the irradiated tumor cells and, if not repaired, these DNA single strand breaks lead to the death of the irradiated tumor cells. However, the enzyme topo 1 has the ability to re-ligate DNA single strand breaks and repair the radiotherapy-caused DNA damage, thereby saving the tumor cells from cell death and reducing the efficacy of radiotherapy. As a result, there is interest in combining radiotherapy with topo 1 inhibitors to enhance the effects of radiotherapy, i.e. as a radiosensitizer. However, the combined toxicities of radiotherapy and either irinotecan or topotecan, the two approved topo 1 inhibitors, are often too severe for this therapy to be clinically useful.

Radiotherapy also causes extensive cell damage, which leads to hypoxic regions in the irradiated tumors. This hypoxia results in the up-regulation of HIF-1a, which in turn has been shown to up-regulate cancer cell survival pathways and thereby reduce the effectiveness of radiotherapy. Thus, a beneficial chemotherapeutic agent to combine with radiotherapy would be (1) a topo 1 inhibitor to prevent the repair of radiotherapy-induced single-strand DNA breaks as a radiosensitizer, (2) a HIF-1a inhibitor to prevent the radiotherapy-induced up-regulation of HIF-1a and its associated induced resistance to radiotherapy, (3) an agent with a favorable safety profile to allow the combination with radiotherapy and (4) an agent with durable topo 1 and HIF-1a inhibition since radiotherapy is frequently administered daily and thus requires durable counteracting of DNA repair and HIF-1a up-regulation. We believe that CRLX101 may be a beneficial agent for combination with radiotherapy since it satisfies all of the above criteria. This is evidenced by an animal tumor model of head and neck cancer in which CRLX101 was shown to be a potent radiosensitizer, thus suggesting that CRLX101 may have clinical utility in combination with radiotherapy in certain cancer types.



## **CRLX101 Clinical Development**

Based on the properties of CRLX101, we have prioritized its clinical development in accordance with the following criteria:

- Topo 1-sensitive tumor types
- HIF-driven tumor types
- Solid tumors with increased hypoxia as a result of radiotherapy or anti-angiogenic drugs
- Potential for synergy in combination with radiotherapy or VEGF inhibitors
- Earlier lines of therapy with less advanced tumors in which the durable inhibition of HIF may confer greater benefit in preventing therapy resistance and metastases

Accordingly, we currently are focusing on combinations with other cancer therapies in three indications: relapsed renal cell carcinoma in combination with Avastin, relapsed ovarian cancer in combination with Avastin and neoadjuvant rectal cancer in combination with Xeloda and radiotherapy.

### ***CRLX101 Phase 1/2a Clinical Trial***

In 2011, we completed a Phase 1/2a clinical trial of CRLX101 in 62 patients with advanced multiply pre-treated solid tumor malignancies. This clinical trial began in June 2006. From June 2006 to June 2009, Calando Pharmaceuticals, Inc., or Calando, conducted a Phase 1 trial of CRLX101, in which it dosed 18 patients. We continued the Phase 1 trial from June 2009 to April 2010 and then began the Phase 2a portion of the trial. Ultimately, the Phase 1 portion of the trial enrolled a total of 24 patients, and from April 2010 to January 2011, we enrolled 38 patients in the Phase 2a portion.

Results from the Phase 1 portion of the clinical trial showed that patients were able to tolerate CRLX101 administered intravenously at a maximum tolerated dose of 15mg/m<sup>2</sup> camptothecin equivalent every two weeks and that toxicities at this dose were generally low grade and reversible upon termination of treatment. The primary dose limiting toxicity identified in the Phase 1 portion of the clinical trial was neutropenia, which is a well-documented side effect of many chemotherapeutic agents and is considered an on-target effect resulting from the activity of topo 1 inhibitors, such as camptothecin, in the bone marrow.

After determination of the maximum tolerated dose in the Phase 1 portion of the clinical trial, an additional 38 patients were enrolled in a Phase 2a maximum tolerated dose expansion cohort, with a focused selection of patients with cancer types that historically have demonstrated sensitivity to topo 1 inhibitors, including 21 NSCLC patients. Pursuant to the design of the trial, CRLX101 treatment continued until disease progression, which was determined based on RECIST criteria, patient withdrawal, excessive toxicity or adverse events delaying treatment for 28 days or resulting in death. Patients continuing CRLX101 treatment also received additional supportive care. A total of 44 patients, six of whom were in the Phase 1 portion and 38 of whom were in the Phase 2a portion of the trial, with an average of 3.5 prior regimens of therapy, received CRLX101 at the maximum tolerated dose of 15mg/m<sup>2</sup>. Mean elimination unconjugated T<sub>max</sub> values, which is the time after administration of a drug when the maximum plasma concentration is reached, generally ranged from 17.7 to 24.5 hours, confirming the sustained release of camptothecin. Maximum plasma concentrations and areas under the curve were generally proportional to dose for both conjugated and unconjugated camptothecin confirming consistent camptothecin release at different dose levels. The primary objectives of the Phase 1/2a clinical trial were to determine the safety, toxicity, maximum tolerated dose and plasma PK of CRLX101 when administered intravenously to patients with advanced solid tumor malignancies. All of the objectives of the Phase 1/2a trial were met.

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RECIST defines disease progression and tumor response based on the sum of the longest diameters of a set of target tumor lesions identified when the patient enters the trial, which we refer to as baseline. A 20% or greater increase in the sum of diameters in target lesions as compared to baseline, or unequivocal progression in non-target lesions, or the appearance of a new lesion, is defined as progressive disease. A reduction in the sum of the diameters of at least 30% as compared to baseline and no new lesions is defined as a partial response. A complete disappearance of target and non-target lesions, and the normalization of any tumor markers, constitutes a complete response. Both partial and complete responses must be confirmed by repeat assessments at least four weeks after the partial or complete response is first documented. Stable disease refers to patients who exhibit neither response nor disease progression. Objective response rate is typically defined as the sum of the patients with partial and complete response divided by the number of patients.

Median progression free survival for patients treated in the Phase 1/2a trial at the maximum tolerated dose was 3.7 months. The best response per RECIST criteria was stable disease in 28 patients, or 64%, treated at the maximum tolerated dose, of which 15 patients, or 34%, had confirmed stable disease at subsequent evaluations. Six patients went on to receive treatment with CRLX101 for longer than six months, and one such patient with pancreatic cancer with liver and lung metastases experienced stable disease and received a total of 24 cycles of CRLX101 at 6 mg/m<sup>2</sup> weekly dosing prior to discontinuing for progressive disease, or PD. In a subset of 22 patients with NSCLC, median progression free survival was 4.4 months for all patients and 4.8 months for patients with non-squamous histology, and stable disease was reported in 16 patients, or 73%, eight of whom had confirmed stable disease at subsequent evaluations. None of the patients treated in the Phase 1/2a trial reported excessive treatment-related toxicities or treatment-related adverse events resulting in death.

### ***CRLX101 Phase 2 Clinical Trial in NSCLC***

In 2011, we began an open-label, randomized Phase 2 clinical trial of CRLX101 as monotherapy in patients with advanced NSCLC who had progressed through one or two prior regimens, which we also refer to as second and third line therapy, respectively, of chemotherapy. This clinical trial was conducted under an investigational new drug application, or IND, and we enrolled 157 patients between July 2011 and April 2012 at sites in Russia and the Ukraine. The trial had a treatment arm, which consisted of patients treated with CRLX101 and best supportive care, and a comparator arm, which consisted of patients receiving best supportive care. For every two patients enrolled in the CRLX101 treatment arm, one patient was enrolled in the best supportive care comparator arm.

This Phase 2 clinical trial failed to meet its primary endpoint, which was improvement in overall survival of the CRLX101 intention to treat group as compared to the best supportive care arm of the trial. The difference in the overall survival of the CRLX101 intention to treat group as compared to the best supportive care arm of the trial was analyzed with a log rank test in a Kaplan-Meier survival model. The p-value associated with this test was not statistically significant (p=0.14). In clinical trials comparing CRLX101 to a control using a specified endpoint, the p-value is a measure of compatibility between the observed outcomes and the hypothesis that there is no treatment effect attributable to CRLX101; the p-value represents the likelihood that the observed outcome occurred by chance alone. Adverse events experienced in the CRLX101 arm of the trial were generally low grade and manageable and were similar to the adverse events experienced on the best supportive care arm of the trial. This adverse event profile was consistent with the adverse events seen in other clinical trials of CRLX101. Secondary endpoints of the trial included safety, tolerability, median progression free survival time, objective response rate and overall survival in particular patient subgroups. Although the trial failed to meet its primary endpoint, we observed evidence of activity for CRLX101 as measured by RECIST responses and observed progression free survival and overall survival comparable to the progression free survival and overall survival observed in approved cancer therapies in this setting. Disease progression and tumor response rates were determined in accordance with RECIST criteria.

Median overall survival for patients administered CRLX101 was 6.3 months compared to 11.9 months for patients administered best supportive care. However, the best supportive care population was significantly

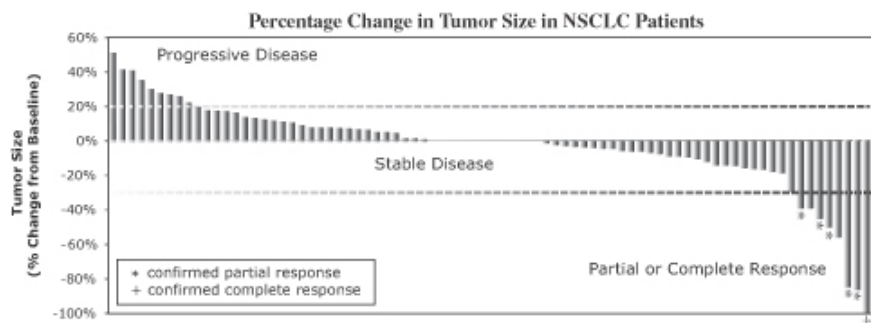
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enriched for more slowly progressing patients primarily because of (1) selective patient withdrawal, which was possible due to the open-label protocol of the trial, and (2) access to post-treatment therapy; we did not anticipate either of these factors when the trial protocol was developed. An analysis of the patient populations indicated that 16% of the best supportive care patients, versus 5% of the CRLX101 treated patients, withdrew from the trial before or during the first treatment cycle, which was four weeks in duration. The patients who withdrew from the best supportive care arm were more rapidly progressing than the remaining patients in the best supportive care arm, as measured by prognostic factors including a high percentage of males, a shorter time since initial diagnosis and a shorter time since relapse. The result was that rapid progressors tended to withdraw from the best supportive care arm while slower progressors tended to remain in the best supportive care arm. A time to treatment failure analysis confirmed the impact of the selective withdrawal of the best supportive care patients since the median time to treatment failure for best supportive care patients was 1.7 months, compared to 2.1 months for the CRLX101 patients. In addition, 40% of the best supportive care patients received post-trial cancer therapy, versus 28% of the CRLX101 treated patients.

We believe these imbalances in withdrawal rates and post-trial cancer treatment between the CRLX101 and best supportive care arms caused an upward skewing of the median overall survival of the best supportive care population. This belief is supported by benchmark data on median overall survival in previous second and third line registration trials of Iressa® (gefitinib), Tarceva® (erlotinib) and docetaxel in NSCLC. For example, the 11.9 month median overall survival of the best supportive care population observed in our trial (1) is more than double the median overall survival for the relevant second and third line best supportive care benchmarks in NSCLC, which range from 4.6 to 5.1 months; and (2) greatly exceeds the median overall survival for second and third line approved treatments for NSCLC, which range from 5.6 to 7.5 months.

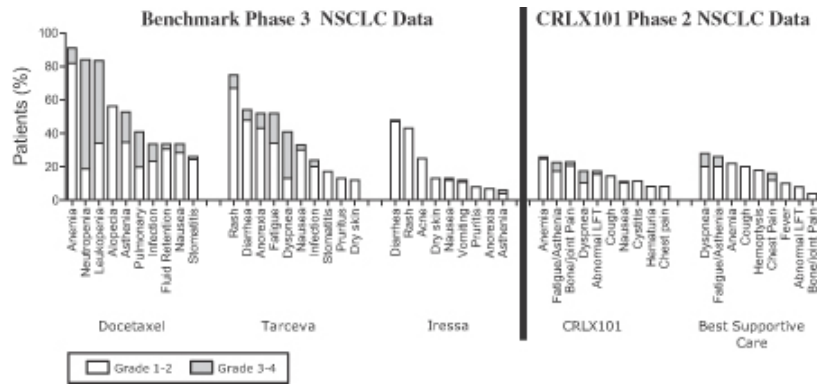
Even if the best supportive care arm of the trial had performed in line with Phase 3 benchmarks, we believe the NSCLC trial would have failed to meet its endpoint because the results of the CRLX101 treatment arm did not meet our expectations. As a result, we are not planning further clinical development in this indication, however, based on several analyses, we believe that this trial of CRLX101 as monotherapy provides important information for the CRLX101 development program (1) suggesting CRLX101 is active in a refractory solid tumor patient population and (2) reinforcing CRLX101's apparently favorable safety profile.

The following graph shows the change in tumor size for the 81 NSCLC patients who received CT scans on the CRLX101 arm of the NSCLC trial. Each vertical bar in the graph represents the percentage change in tumor size from the time when the patient entered the clinical trial until the largest tumor size reduction or smallest tumor size growth, as applicable, was measured for that patient in accordance with RECIST. These results reflect that the majority of patients treated with CRLX101 in the trial achieved disease control, which includes stable disease, partial responses and complete responses. Six of the eight RECIST responses were confirmed by a subsequent CT scan, one of which was a complete response.



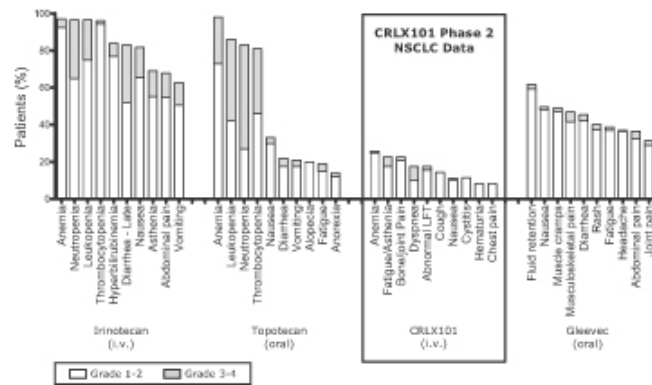
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The adverse events experienced in the CRLX101 arm of the clinical trial were generally low grade and manageable. They were similar to the adverse events experienced on the best supportive care arm of the trial, and they were relatively less severe than the adverse events experienced in clinical trials of docetaxel, Tarceva and Iressa, as illustrated by the graphs below.



**Potential for Combinability**

A comparison of the adverse events experienced by patients in the CRLX101 arm of the NSCLC clinical trial to (a) the adverse events experienced by patients in clinical trials of approved camptothecin-class therapeutics, irinotecan and topotecan, and (b) the adverse events experienced by patients in clinical trials of Gleevec® (imatinib) further confirms the apparently favorable safety profile of CRLX101. As illustrated in the graphs below, the adverse events experienced by patients in the CRLX101 arm of the NSCLC trial were (x) generally less severe than those experienced by patients in the clinical trials of irinotecan and topotecan and (y) less prevalent than those experienced by patients in clinical trials of Gleevec. We believe that CRLX101’s apparently favorable safety profile supports our view that CRLX101 may be combinable with anti-cancer therapies.



***Ongoing CRLX101 Clinical Trials***

*Relapsed Renal Cell Carcinoma*

**Current Treatments for Renal Cell Carcinoma:** The American Cancer Society estimated that 65,000 new cases of kidney cancer would occur in the United States in 2013 and that approximately 14,000 people would die from kidney cancer in 2013. According to the Surveillance, Epidemiology, and End Results (SEER) Program of the United States National Cancer Institute, the incidence of kidney cancer appears to be rising. Renal cell carcinoma is by far the most common type of kidney cancer; approximately nine out of ten kidney cancers are renal cell carcinomas. There is currently no cure for renal cell carcinoma that has metastasized beyond the lymph nodes to one or more distant organs, which we refer to as metastatic renal cell carcinoma. The majority of patients with metastatic renal cell carcinoma progress to a third line treatment regimen, and there is currently no treatment specifically approved for use in third line treatment of renal cell carcinoma. This unmet need creates an opportunity for a new class of therapies in this indication.

Systemic therapeutic options for advanced stage renal cell carcinoma include molecularly targeted therapies and, less often, chemotherapy and immunomodulatory therapies such as interferon alpha and interleukin-2. Molecularly targeted therapies used for the treatment of renal cell carcinoma have only modestly extended the median overall survival of patients.

While there are currently six FDA-approved therapies commonly used for the treatment of renal cell carcinoma, they represent only two mechanistic classes—those that target VEGF signaling, including tyrosine kinase inhibitors, or TKIs, and those that inhibit the mammalian target of rapamycin, or mTORIs. Recent drug development has focused on improvements within these classes but has produced only incremental gains such as the two-month progression free survival advantage of Inlyta® (axitinib) over Nexavar® (sorafenib) in the second-line treatment of advanced renal cell carcinoma. No new class of targeted therapy has been introduced in the field since the mTORI, Torisel® (temsirolimus), in 2007. A second mTORI, Afinitor® (everolimus), was shown to extend progression free survival only modestly over placebo in the second-line setting, from 1.9 months to 4.9 months. We believe that there is a significant need for therapeutics with novel properties, such as CRLX101, to treat relapsed renal cell carcinoma.

**Rationale for Use of CRLX101 for Relapsed Renal Cell Carcinoma:** Clear cell renal cell carcinoma comprises approximately 85% of renal cell carcinomas. The most commonly identified genetic aberrations in clear cell tumors are mutations of the von Hippel Lindau tumor suppressor gene and the reduction or loss of its tumor suppressor function. This loss in turn leads to higher intracellular levels of HIF-1a and HIF-2a, resulting in paracrine signaling, which is a form of cell-to-cell communication in which a cell produces a signal that alters the behavior or differentiation of nearby cells, by tissue growth factors such as VEGF, a key mediator of angiogenesis. Therefore, angiogenesis is an early pathophysiologic step in the tumorigenesis and disease progression in many renal cell carcinomas.

As highlighted above, CRLX101 appears to durably suppress HIF-1a and HIF-2a in preclinical animal studies and has demonstrated notable synergy in combination with VEGF inhibitors including Avastin. We hypothesize that a CRLX101-mediated override of acquired resistance to Avastin, achieved through the inhibition of HIF, could facilitate the translation of progression free survival and response rate benefits achieved with Avastin in this setting into meaningful overall survival benefits for renal cell carcinoma patients.

Our preclinical data suggest that CRLX101 is an inhibitor of both HIF-1a and HIF-2a protein expression. While the role of HIF-1a as a master regulator of cancer cell survival pathways is well documented, the exact role of HIF-2a is generally less well described. Both HIF-1a and HIF-2a expression have been shown to correlate with poor prognosis in multiple tumor types. But in the case of renal cell carcinoma, the specific roles of HIF-1a and HIF-2a are not yet well understood. Some leading oncologists and researchers have suggested that inhibiting HIF-1a and HIF-2a simultaneously may be better than inhibiting HIF-1a or HIF-2a individually.

We have chosen Avastin as a CRLX101 combination therapeutic for several reasons. Avastin is a monoclonal antibody with affinity for VEGF that demonstrates clinically worthwhile activity in the treatment of



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Of the nine patients evaluable in this trial as of March 1, 2014, three patients, or 33%, have demonstrated confirmed RECIST partial responses. The RECIST partial response rate of three of the nine evaluable patients is encouraging because several recent studies in advanced renal cell carcinoma suggest that after treatment with a TKI such as Sutent® (sunitinib), subsequent therapies, including Avastin alone, achieve RECIST partial response rates of only between 2% and 4%. While there are a small number of patients in the trial, and only nine have been evaluated as of March 1, 2014, a partial response rate that appears to be substantially higher than the response rate reported in the literature for a TKI pre-treated renal cell carcinoma patient population suggests that the preclinical synergy between CRLX101 and Avastin may translate into differentiated therapeutic benefit in advanced renal cell carcinoma.

Based on results observed to date in the Phase 1b/2 trial and discussions with key investigators in the field, we intend to evaluate the CRLX101-Avastin combination in a randomized, well-controlled Phase 2 clinical trial beginning in the second half of 2014. We plan to conduct this CRLX101-Avastin combination trial in third line relapsed renal cell carcinoma patients having progressed through both prior VEGF inhibiting therapy and prior mTORI therapy with a comparison made to the standard of care in this setting. We expect to design the trial to enroll between 80 and 120 patients with a one-to-one randomization to CRLX101 or standard of care. We currently expect to receive data from this randomized trial by the end of 2015.

Our planned initial indication for CRLX101 in the treatment of renal cell carcinoma is in combination with Avastin in patients who have progressed to a third line treatment regimen. We estimate that in 2013 approximately 11,000 relapsed renal cell carcinoma patients in the United States became eligible for third line treatment. If we attempt to expand the use of CRLX101 in renal cell carcinoma, we may consider pursuing an approval of CRLX101 for use in combination with Avastin in renal cell carcinoma patients who progress to second line treatment. We estimate that in 2013 there were approximately 21,000 such patients in the United States. In addition, we also may consider pursuing an approval of CRLX101 for use in combination with a TKI in patients receiving their first systemic therapy for renal cell carcinoma. We estimate that in 2013 there were approximately 36,000 such patients in the United States.

### *Relapsed Ovarian Cancer*

**Current Treatments for Ovarian Cancer:** The American Cancer Society estimated that approximately 22,000 women in the United States would receive a new diagnosis of ovarian cancer in 2013 and that approximately 14,000 women in the United States would die from ovarian cancer in 2013, which would make ovarian cancer the leading cause of death among gynecologic malignancies in the United States.

First-line therapy for ovarian cancer, including epithelial, tubal and peritoneal cancers, is typically inclusive of a platinum and taxane containing therapy with or without Avastin; however, Avastin is not approved for use in ovarian cancer. Some patients will be primary refractory, meaning they never achieve a RECIST-based response to initial therapy; the prognosis for these patients is extremely poor.

The majority of patients with advanced ovarian cancer who achieve a RECIST-based response will eventually experience cancer recurrence. Therapy selected for later-line treatment of patients who achieve a RECIST-based response to frontline therapy depends on whether the patient is defined as platinum sensitive or platinum resistant. Platinum sensitive includes those patients who achieved initial response and whose cancer does not recur for six months or longer after completing platinum-based therapy. Resistant disease includes those who experience recurrence in less than six months. Treatment of patients with platinum-sensitive disease will typically include another platinum containing therapy, usually a doublet where the second agent is a taxane or Gemzar. Alternatively, Doxil (liposomal doxorubicin) may be used. Avastin may also be considered although it is not FDA approved for this indication. Treatment of patients with platinum-resistant disease is more challenging and may include one of several agents, including Avastin, Doxil, topotecan, docetaxel, gemcitabine, weekly paclitaxel and etoposide, none of which have been established to prolong survival. There remains considerable unmet medical need for patients with recurrent ovarian cancer and in particular for those who are platinum resistant.

**Rationale for use of CRLX101 for Relapsed Ovarian Cancer:** Publicly released data from a recently concluded international Phase 3 randomized clinical trial for the treatment of patients with second and third line platinum-resistant ovarian cancer conducted by Hoffman-La Roche revealed that the addition of Avastin to chemotherapy, while displaying notable achievements in progression free survival and a strong trend toward improvements in overall survival in particular patient sub-groups, did not achieve a statistically significant improvement in overall survival among all patients. Based on this and other trials evaluating Avastin use in ovarian cancer, it appears that while benefits of VEGF inhibitors such as Avastin are suggested in this setting, it is unlikely that Avastin will be approved by the FDA for use in ovarian cancer based on the data presented to date. We hypothesize that HIF-1a contributes to resistance to VEGF inhibitors, including Avastin. Furthermore, a comprehensive analysis of over-represented genes in ovarian cancer identifies HIF-1a as a highly active pathway common to both basal breast and serous ovarian cancers and suggests that HIF-1a may be an important therapeutic target in ovarian cancer. As highlighted above, CRLX101 appears to durably suppress HIF-1a and demonstrates notable synergy in combination with VEGF inhibitors, including Avastin, in preclinical tumor models of ovarian cancer. We hypothesize that a CRLX101-mediated override of acquired resistance to Avastin, achieved through the inhibition of HIF-1a, will facilitate the translation of progression free survival and response rate benefits achieved with Avastin in relapsed platinum-resistant ovarian cancer into meaningful and statistically significant overall survival benefits for these patients.

The combination of CRLX101 with Avastin in platinum-resistant ovarian cancer capitalizes on several important aspects of this indication, specifically: ovarian cancer is a HIF overexpressing tumor type, the combination of CRLX101 with Avastin in preclinical ovarian cancer models is synergistic, and CRLX101 and Avastin appear to be well tolerated in humans.

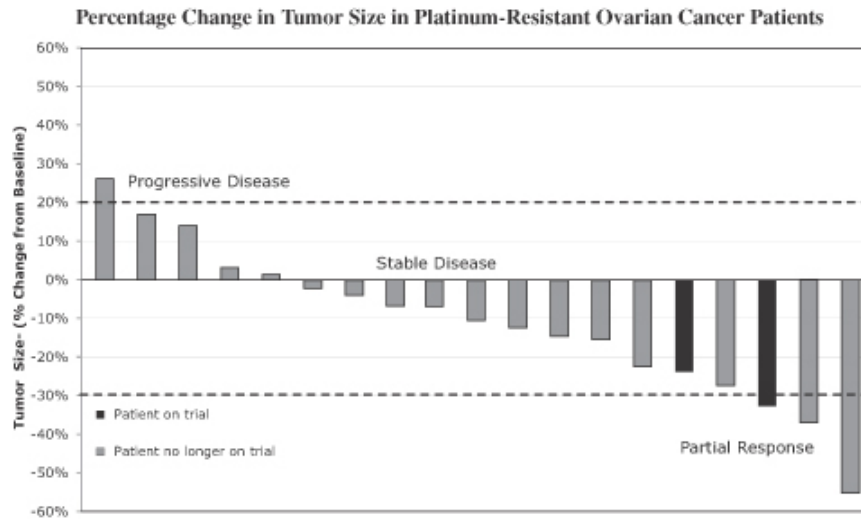
**Clinical Development of CRLX101 in Relapsed Ovarian Cancer:** A single arm Phase 2 IST of CRLX101 as monotherapy in 29 advanced relapsed ovarian cancer patients is being conducted at Massachusetts General Hospital and affiliated Harvard teaching hospitals in Boston, Massachusetts. The first patient was enrolled in July 2012 and enrollment was completed in July 2013. The primary endpoints of this trial are to achieve progression free survival at six months for at least four patients and to confirm safety and tolerability of CRLX101 dosed at 15mg/m<sup>2</sup> every two weeks in relapsed ovarian cancer patients.

The primary progression free survival endpoint has been met with at least four patients having achieved progression free survival time on trial of six months or longer. In addition, as of March 1, 2014, 15 patients had achieved net tumor shrinkages, with four patients having achieved RECIST-based partial responses. In addition, two patients remained active on trial as of March 1, 2014. In the platinum-resistant patient subpopulation (22 of 29 patients), 19 of 22 patients were receiving CRLX101 as third or later line of therapy, and three of 22 patients received CLRX101 as second line therapy. With 19 platinum-resistant patients evaluable as of March 1, 2014, 18 demonstrated scan results showing stable disease or better for their target legions, with three of these 19 patients having achieved a RECIST partial response.



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The graph below shows the change in tumor size for the 19 evaluable platinum-resistant patients in this trial as of March 1, 2014. Each vertical bar in the graph represents the percentage change in tumor size from the time when the patient entered the clinical trial until the largest tumor size reduction or smallest tumor size growth, as applicable, was measured for that patient in accordance with RECIST. The changes in tumor size are unaudited and based on CT-scan assessment performed at the treating center.



These data suggest activity of CRLX101 as monotherapy in relapsed ovarian cancer. Since ovarian cancer has been identified as a HIF overexpressing tumor type and CRLX101 was generally well tolerated in this trial, we are also supporting a combination IST of CRLX101 with Avastin in relapsed platinum-resistant ovarian cancer. This single arm Phase 2 clinical trial of CRLX101 dosed at 15mg/m<sup>2</sup> every two weeks in combination with Avastin dosed at 10mg/kg every two weeks in second and third line platinum-resistant ovarian cancer patients has been initiated at Massachusetts General Hospital and affiliated Harvard teaching hospitals in Boston, Massachusetts. As of March 1, 2014, two patients have been enrolled. The primary endpoint of the trial is progression free survival at six months in eight patients, and secondary objectives include assessment of response rates and toxicities as assessed by the National Cancer Institute’s Common Terminology Criteria for Adverse Events, Version 4.0. A maximum of 43 patients will be enrolled in the trial. Based on the results observed in this trial, including the rates of objective tumor response and progression free survival, we will determine whether to conduct a randomized pivotal trial of the CRLX101-Avastin combination. Based in part on our discussions with our advisory board, we believe that if we observe a 20% or higher objective response rate in the ongoing trial, it will provide a high degree of confidence for success in a subsequent randomized pivotal trial. Therefore, assuming the continued tolerability of the CRLX101-Avastin combination and appropriate signals of objective tumor response and progression free survival activity in the ongoing trial, we expect to initiate the randomized pivotal trial in 2015.

Our planned initial indication for CRLX101 in the treatment of ovarian cancer is in combination with Avastin in platinum-resistant patients who have progressed to a second or third line treatment regimen. We estimate that in 2013 approximately 9,000 relapsed platinum-resistant ovarian cancer patients in the United States became eligible for second or third line treatment. If we attempt to expand the use of CRLX101 in ovarian cancer, we may consider pursuing an approval of CRLX101 for use in combination with Avastin in maintenance therapy. We estimate that in 2013 there were approximately 11,000 such patients in the United States. In

addition, we also may consider pursuing an approval of CRLX101 for use in combination with taxanes in patients receiving their first systemic therapy for ovarian cancer. We estimate that in 2013 there were approximately 14,000 such patients in the United States.

### *Neoadjuvant Rectal Cancer*

**Current Treatments for Neoadjuvant Rectal Cancer:** The American Cancer Society estimated that approximately 40,000 people in the United States would be newly diagnosed with rectal cancer in 2013. According to the American Cancer Society, approximately 28,000 of these people are diagnosed before the disease has metastasized beyond the lymph nodes to one or more distant organs. Patients without distant metastases are candidates for neoadjuvant therapy, which consists of five to six weeks of radiotherapy and chemotherapy, typically Xeloda or 5-FU, which is also referred to as chemoradiotherapy. The goal of chemoradiotherapy is to shrink the tumors as much as possible prior to surgical resection. In clinically manageable treatment therapies that have been evaluated, a pathologic complete response is observed in about 15% to 20% of patients. A pathologic complete response following neoadjuvant chemoradiotherapy is associated with excellent long-term survival versus patients who did not achieve pathologic complete response (five-year odds ratio of 3.28,  $p=0.001$ ), long-term disease free survival (five year odds ratio of 4.33,  $p < 0.001$ ) and lower rates of local recurrence and distant failure.

Since the treatment objective of neoadjuvant chemoradiotherapy followed by surgery is curative, surgeons remove as much tissue as they deem necessary to maximize the chance for a cure. In many cases, this requires the removal of the sphincter together with the cancerous rectal tissue. Patients who achieve a pathologic complete response or significant tumor shrinkage following neoadjuvant chemoradiotherapy often benefit from not having their sphincters removed. This translates into a significantly higher quality of life compared to patients with sphincter removal who will not be able to control their bowel movements for the remainder of their lives. We believe that, in addition to pathologic complete response, sphincter preservation is a compelling and objectively measurable endpoint in the neoadjuvant rectal cancer setting.

**Rationale for use of CRLX101 in Neoadjuvant Rectal Cancer:** Radiotherapy causes DNA single strand breaks which, if not repaired, lead to desired apoptosis of radiated tumor cells. However, cell repair mechanisms, including topo 1, which re-ligates DNA strand breaks, can undo the radiotherapy damage to tumor cells, thus interfering with the desired effects of the radiotherapy. Since topo 1 is instrumental in repairing radiotherapy-induced DNA single strand breaks, we expect a combinable topo 1 inhibitor to be effective as a radiosensitizer. In fact, combinations of irinotecan plus Xeloda or 5-FU plus radiotherapy have demonstrated pathologic complete response rates between 21% and 37% across various trials, which is greater than the pathologic complete response rates that have been demonstrated across various trials using Xeloda or 5-FU plus radiotherapy. However, the toxicity of irinotecan prevents its addition to this therapy beyond clinical trial settings. CRLX101 in combination with radiotherapy in a head and neck cancer animal model demonstrated notable synergy, which we believe was due to direct anti-cancer effects and enhanced radiosensitization. In addition, local tumor hypoxia is a byproduct of radiotherapy, and there is a well-documented role of hypoxia-induced HIF-1a up-regulation in causing resistance to radiotherapy. Accordingly, we believe that CRLX101, with its durable topo 1 and HIF-1a inhibition, as well as its favorable safety profile, offers strong potential as an add-on drug to standard of care chemoradiotherapy in neoadjuvant rectal cancer.

**Clinical Development of CRLX101 in Neoadjuvant Rectal Cancer:** A single-arm open-label Phase 1b/2 IST of CRLX101 in combination with Xeloda and radiotherapy in patients with neoadjuvant rectal cancer is being conducted at the University of North Carolina at Chapel Hill and is expected to expand to the University of Indiana and Wake Forest University. This clinical trial is designed to identify the maximum tolerated dose of CRLX101 administered in combination with Xeloda and radiotherapy and to detect signals of increased clinical benefit over Xeloda and radiotherapy alone. The trial is designed to enroll up to 53 patients and has a primary endpoint of pathologic complete response as well as secondary endpoints of disease free survival and overall survival.

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Once the maximum tolerated dose is established, we intend to transition into a randomized Phase 2 trial of approximately 80 to 120 patients. This clinical trial will compare the safety and efficacy of CRLX101, Xeloda and radiotherapy to Xeloda and radiotherapy. Two important efficacy endpoints will be measured at the time of surgery: pathologic complete response and sphincter preservation. Assuming the randomized Phase 2 trial is supportive and following discussions with the FDA, we plan to initiate a randomized Phase 3 clinical trial comparing CRLX101, Xeloda and radiotherapy to Xeloda and radiotherapy alone. Based on early assumptions, we expect to enroll approximately 300 to 500 patients in this Phase 3 trial. We expect to conduct the trial as a randomized, well-controlled clinical trial to demonstrate superiority over chemoradiotherapy alone, as measured by the efficacy endpoints of pathologic complete response and sphincter preservation. We believe it is possible that strong efficacy, quality of life and safety data may lead to accelerated approval of CRLX101 in neoadjuvant rectal cancer. As a condition of accelerated approval, we expect that we will need to demonstrate superiority in disease-free survival to confirm approval in this indication.

Assuming completion of the dose-finding portion of the Phase 1b clinical trial by mid-2014, we expect to transition into the Phase 2 randomized clinical trial by the end of 2014 and to have pathologic complete response and sphincter preservation data available by late 2015. We expect this data set will provide the foundation for an end of Phase 2 meeting with the FDA to discuss Phase 3 trial design and requirements for accelerated approval, assuming positive pathologic complete response and sphincter preservation data, as well as the requirements to confirm approval in this indication.

Our planned initial indication for CRLX101 in the treatment of rectal cancer is in combination with Xeloda and radiotherapy in patients being treated in the neoadjuvant setting. We estimate that in 2013 approximately 28,000 non-metastatic rectal cancer patients in the United States became eligible for neoadjuvant treatment. If we attempt to expand the use of CRLX101 in rectal cancer, we may consider pursuing an approval of CRLX101 for use in the adjuvant setting. We estimate that in 2013 there were approximately 28,000 such patients in the United States. In addition, we also may consider pursuing an approval of CRLX101 for use in the treatment of first line metastatic colorectal cancer. We estimate that in 2013 there were approximately 29,000 such patients in the United States.

### *Other indications*

**Gastric Cancer.** A single-arm Phase 2 pharmacodynamic clinical trial of CRLX101 in advanced HER 2 negative gastric cancer patients is being conducted in an IST at the City of Hope National Comprehensive Cancer Center in Duarte, California. The trial objectives are to utilize tumor biopsies to establish differential nanopharmaceutical penetration between tumor and adjacent normal tissue and to establish signals of activity in HER-2 negative gastric cancer patients. The first patient was enrolled in January 2013, and, as of March 1, 2014, evaluable pre- and post-treatment tumor biopsies involving tumor tissue and healthy adjacent tissue have been collected from four patients, three of whom had evaluable biopsies. The biopsies from these three patients have been analyzed for differential drug accumulation between tumor and normal tissue using immunofluorescence techniques. Data from two of these patient-samples measuring camptothecin levels in tumor and adjacent normal tissue between 24 and 48 hours after a single dose of CLRX101 was administered indicated that camptothecin was present in the tumor tissue and very little camptothecin was present in the adjacent normal tissue. We believe these data illustrate dynamic tumor targeting of CRLX101 in patients and confirm in human patients results we have observed in animal tumor models. We believe that this CRLX101 data in humans validates the dynamic tumor targeting properties of our platform.

**Small Cell Lung Cancer.** A randomized Phase 2 clinical trial of 112 patients comparing CRLX101 as monotherapy to topotecan in advanced small cell lung cancer, or SCLC, is being conducted in an IST at the University of Chicago and at other major medical centers in the United States. The trial objectives are to establish feasibility of enrolling this advanced patient population and to differentiate the safety and efficacy of CRLX101 at 15mg/m<sup>2</sup> dosed every two weeks versus topotecan, the only approved second line SCLC agent. Additionally, we expect the trial may enroll up to 44 patients with chemotherapy-resistant SCLC in a single-arm fashion to receive CRLX101 therapy. The first patient was enrolled in January 2013.

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### *Additional CRLX101 Development Opportunities*

We believe that the favorable adverse event profile of CRLX101 may allow combinations with anti-cancer therapies beyond Avastin and Xeloda. This may include combinations with other chemotherapeutics, targeted chemotherapeutics, molecularly targeted agents and nanopharmaceuticals, and may extend CRLX101 into indications beyond our current target indications.

Several approved anti-cancer therapeutics work by reducing blood vessel formation, and thus we believe CRLX101 may be combinable with approved anti-angiogenesis inhibitors other than Avastin, such as Zaltrap, Sutent, Nexavar and Votrient, among others. In preclinical tumor models, in addition to Avastin, we have tested the combination of CRLX101 with Votrient and Zaltrap and have observed synergy between CRLX101 and each of these agents. HIF-1 $\alpha$  assays across multiple tumor models have shown CRLX101 to be a durable inhibitor of HIF-1 $\alpha$  and to provide synergistic HIF-1 $\alpha$  inhibition when combined with Avastin.

Beyond exploiting the apparent synergies from combining topo 1 and HIF inhibition with VEGF inhibition or radiotherapy, as is the focus of our current combination clinical trials, extensive preclinical modeling of CRLX101 combinations with other agents that demonstrate synergistic or additive properties with traditional chemotherapeutic agents, such as taxanes and platinum. These combinations could further enhance the utility of CRLX101 as a backbone agent in combination therapies.

In the future, we may investigate combinations of CRLX101 with poly ADP Ribose Polymerase, or PARP, inhibitors. PARP's main role is to detect and signal single-strand DNA breaks to the enzymatic complex, containing topo 1, that repairs single strand DNA breaks. A combined inhibition of PARP and topo 1 is a synergistic combination that has been well established in preclinical research. To date, the potential of this combination has remained unrealized, as Phase 1 trials of PARP inhibitors and topotecan conducted by others have shown toxicities necessitating dose reductions to sub-therapeutic levels. We believe that, due to its improved toxicity profile as compared to approved topo 1 inhibitors, CRLX101 may be combinable with PARP inhibitors at therapeutically active doses.

## **CRLX301**

### **Overview**

CRLX301 is the nanopharmaceutical analog of CRLX101 with docetaxel as its anti-cancer payload. Docetaxel is a highly active chemotherapeutic that binds to microtubules to trigger cell death in dividing cells. Docetaxel is extensively used in clinical practice and is FDA approved for the treatment of NSCLC, squamous cell carcinoma of the head and neck, hormone refractory prostate cancer, breast cancer and adenocarcinoma. Docetaxel causes toxicities, including death attributable to toxicities, hepatotoxicity, neutropenia, hypersensitivity, severe fluid retention and peripheral neuropathy. These toxicities lead to dose adjustments, treatment discontinuation and extensive supportive care.

Since CRLX301 is an analog of CRLX101, we can utilize a common supply chain, intermediates and manufacturing facilities, thereby creating manufacturing synergies across the two programs. We believe the clinical development risk of CRLX301 is somewhat mitigated because the efficacy of docetaxel in humans is extensively validated. In addition, the safety risk of the nanopharmaceutical is reduced since CRLX101, sharing the identical nanopharmaceutical backbone, has been tested in over 200 patients without serious toxicities attributed to the nanopharmaceutical backbone.

Our target product profile for CRLX301 aims to demonstrate improved efficacy, safety and combinability compared to docetaxel. The potential advantages of CRLX301 would be to increase docetaxel's proven anti-tumor activity by targeting CRLX301 into tumors and sustained release of docetaxel from within tumor cells, thereby achieving sustained drug concentrations in tumor cells. We expect lower systemic exposure with CRLX301 compared to docetaxel, based on preclinical studies, potentially enhancing tolerability.

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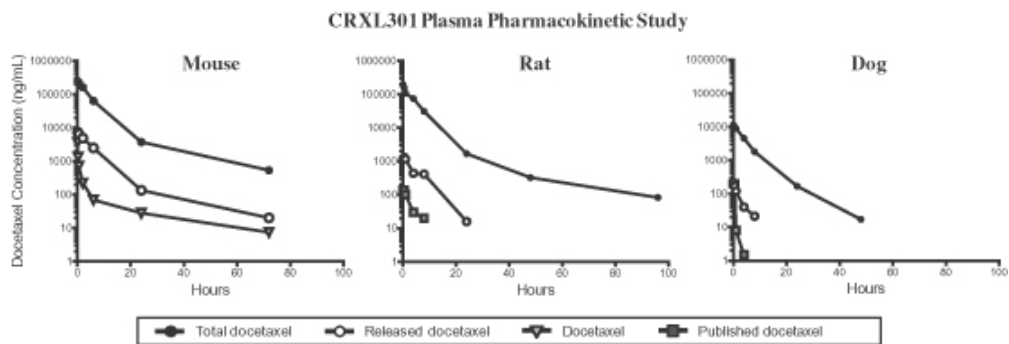
We believe that enhanced therapeutic benefit and a favorable safety profile for CRLX301 would enable combination therapies incorporating CRLX301 with other anti-cancer therapies that may not be combinable today due to docetaxel's toxicities.

**CRLX301 Preclinical and IND-Enabling Data**

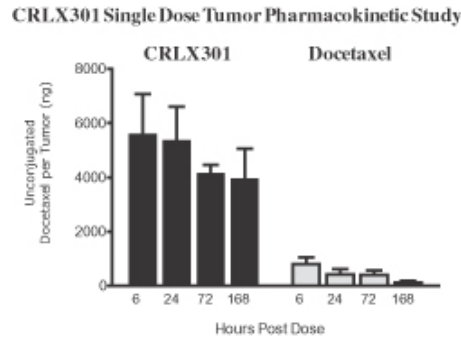
We have conducted the following PK studies in mice, rats and dogs in which CRLX301 demonstrated prolonged circulation as compared to docetaxel:

- a study in which 40 mice were administered a single dose of 15 mg/kg CRLX301 and the PK levels of such mice were compared to the PK levels of 40 mice that received the same dose of docetaxel;
- a study in which 18 rats were administered a single dose of 10 mg/kg CRLX301 and the PK levels of such rats were compared to the PK of docetaxel obtained from published data in rats that received the same dose of docetaxel; and
- a study in which six dogs were administered a single dose of 0.75 mg/kg CRLX301 and the PK levels of such dogs were compared to the PK of docetaxel obtained from published data in dogs that received the same dose of docetaxel.

In each of these studies, the concentrations of docetaxel, total and unconjugated, were measured using liquid chromatography/tandem mass spectrometry. As illustrated in the graphs below, plasma concentration of docetaxel in the mice following dosing of CRLX301 was prolonged, lacked a rapid distribution phase and resulted in an approximately 500-fold increase in plasma exposure of total drug compared to docetaxel in mice treated with docetaxel. We also observed similar increases in exposure when we compared CRLX301 PK data to published data for docetaxel in dog and rat, also as illustrated in the graphs below.

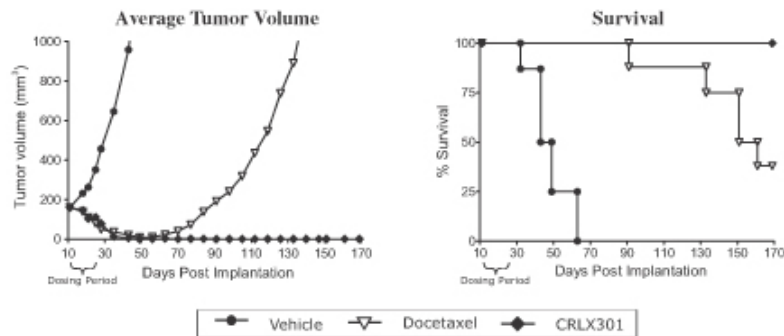


We have also measured tumor levels of CRLX301 that were approximately ten-times the tumor levels of docetaxel in a mouse tumor PK study. We measured concentrations of docetaxel in mice following administration of a single dose of either CRLX301 or docetaxel in mice, in which certain mouse melanoma tumor cells were implanted subcutaneously and allowed to establish tumors. After administration of a single dose of 15 mg/kg docetaxel or 15 mg/kg CRLX301, tumors were extracted from the mice at various time points up to one week post-administration, frozen and homogenized, and unconjugated docetaxel concentrations were measured using liquid chromatography/tandem mass spectrometry. These data were then multiplied by the tumor weight to estimate the amount of docetaxel delivered to the tumor. As shown in the figure below, approximately ten times the amount of docetaxel released from CRLX301 was detected in tumors of the mice that were dosed with CRLX301 as compared to the mice that were dosed with the same amount of docetaxel.



We tested the anti-tumor activity of CRLX301 in animal xenograft models of prostate cancer, squamous non-small cell lung cancer, adenocarcinoma non-small cell lung cancer, ovarian cancer, multi-drug resistant ovarian cancer, triple-negative breast cancer and in a syngeneic melanoma model. In all of these models, CRLX301 was either superior or comparable to docetaxel in either delay of tumor progression and/or complete response rate.

In one such study, we treated nude mouse xenograft models in which human DU-145 prostate cancer tumor cells were implanted subcutaneously into mice and allowed to establish tumors. We administered 30 mg/kg of CRLX301, 30 mg/kg of docetaxel or saline (vehicle) by intravenous infusion. Each dose group consisted of eight animals, and all mice were treated weekly for three weeks. Both CRLX101 and docetaxel delayed tumor growth and improved survival rates as compared to the saline-treated mice, but only CRLX301-treated mice displayed complete tumor regression and 100% tumor-free survival at the conclusion of the study. These results are illustrated in the graphs below and are representative of the other animal xenograft models tested. In all such models, we observed longer lasting or equivalent tumor growth inhibition and higher or equivalent survival rates with CRLX301 as compared to docetaxel.



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These preclinical studies were not designed to demonstrate a statistically significant effect of treatment with CLRX301 as compared to treatment with docetaxel. Nonetheless, in three of the seven animal xenograft models we conducted, CLRX301 demonstrated superior tumor growth inhibition, which was statistically significant (in each case,  $p < .05$ ). CLRX301 also demonstrated a statistically significant survival advantage in four of these seven animal xenograft models (in each case,  $p < .05$ ) and was associated with longer survival in the three animal xenograft models in which CLRX301 did not demonstrate a statistically significant survival advantage.

We have conducted Good Laboratory Practice, or GLP, toxicology studies in 148 rats and 32 dogs that revealed similar target organ effects for CLRX301 as compared to docetaxel; however, the maximum tolerated dose for CLRX301 was approximately 20% higher compared to published data of the maximum tolerated dose for docetaxel in dogs. We observed no evidence of platform-based toxicities. The higher maximum tolerated dose for CLRX301 and a greater than 50-fold reduced volume of distribution in plasma PK studies in rats and dogs are consistent with a decreased systemic exposure of CLRX301 compared to published data for docetaxel, as measured by a volume of distribution that is 50 and 138 times lower for rats and dogs, respectively.

### **Clinical Development of CLRX301**

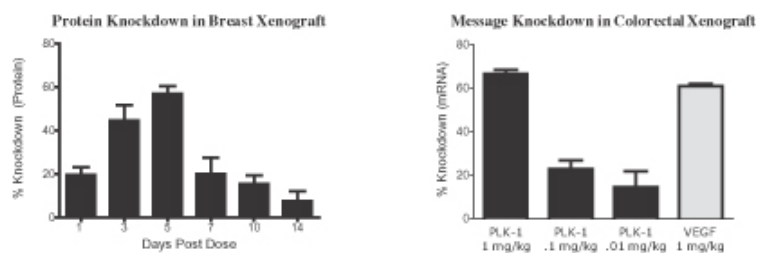
In our clinical development of CLRX301, we plan focus on the utility of this nanopharmaceutical to provide effective delivery of docetaxel into tumors for prolonged periods of time with reduced systemic exposure, enhancing anti-tumor activity while potentially reducing the toxicity observed with traditional taxanes. We intend to commence the Phase 1 portion of a Phase 1/2a clinical trial at two cancer centers in Australia by late 2014. This clinical trial will allow first-in-human dosing of CLRX301 in patients with advanced solid tumor malignancies in order to evaluate the safety of the drug and establish a maximum tolerated dose. Patients in this Phase 1 portion of the clinical trial will receive an intravenous infusion of CLRX301 on day one of a 21-day cycle and continue treatment every three weeks until progression of disease or excessive toxicity is observed. Tumor response evaluations will be performed using RECIST guidelines, and patients will be considered evaluable for efficacy if at least one dose of study drug is received.

Phase 1 patients will be enrolled in a standard three-plus-three dose escalation format. Enrollment in a particular dosing cohort will be halted when two or more out of six patients in a cohort experience a dose-limiting toxicity during cycle one following initiation of study drug. The maximum tolerated dose will be defined as the highest dosing level in which fewer than two out of six patients experience a dose-limiting toxicity during cycle one of therapy. Up to 36 evaluable patients may be enrolled in these Phase 1 dose escalation cohorts, with the exact number being dependent on the actual number of patients per cohort and the number of cohorts investigated.

After we begin Phase 1 clinical testing in Australia, we intend to submit an IND to the FDA, which will allow us to add two cancer centers in the United States to the clinical trial, as the clinical trial transitions from a Phase 1 trial to a Phase 2a trial. The Phase 2a portion of the trial will enroll an additional 24 to 30 patients so that CLRX301 can be evaluated at the maximum tolerated dose established in the Phase 1 portion of the trial in two or three tumor types of interest. Tumor types of interest will be determined based on biological rationale, clinical need, regulatory path, commercial opportunity and results observed during the Phase 1 portion of the trial. For clinical development of CLRX301, we expect to choose from among those tumor types in which docetaxel is approved and active, in which docetaxel is not approved but where taxanes have demonstrated efficacy or in which resistance to prior taxanes has been established. Such possible tumor types include, among others, breast cancer, prostate cancer, ovarian cancer, melanoma and head and neck cancer. In addition, once we have established a maximum tolerated dose, we may choose to conduct a randomized Phase 2 clinical trial in a pre-identified lead indication of interest in order to conduct a head-to-head comparison of CLRX301 against the standard of care in this tumor type of interest. In such a scenario, we expect CLRX301 would be evaluated in approximately 80 patients, randomized one to one between CLRX301 and standard of care.

## RNA Delivery

Preclinical data have shown that siRNA therapeutics in oncology are hampered by a short circulation time and poor tumor uptake. A longer circulating, tumor targeting siRNA delivery system could have the ability to translate promising siRNA science into useful cancer drugs. We have shown in animal tumor models that our PNP technology allows the differential delivery of intact siRNA into tumor cells by stabilizing the RNA inside the nanoparticles, prolonging circulation and increasing tumor uptake, leading to prolonged knockdown in tumors. Our preclinical data demonstrates tumor specific uptake of siRNA containing PNPs leading to significant knock-down in tumors across five different tumor models covering four different tumor types (colorectal, hepatic, ovarian and breast) using four different target genes. For example, we have achieved specific knock-down of green fluorescent protein, or GFP, in nude mouse xenograft models in which human breast cancer tumor cells expressing GFP were implanted subcutaneously in mice and allowed to establish tumors. Following a single administration into the tail vein of anti-GFP containing 3 mg/kg siRNA PNPs, knock-down of GFP protein was observed for at least one week, peaking at approximately 60% knock-down five days post-treatment. In addition, when we administered PNPs containing siRNA against polo-like kinase 1, or PLK-1, a proto-oncogene that drives cell cycle progression, or VEGF, a signal protein produced by cells that stimulates vasculogenesis and angiogenesis, to colorectal tumor bearing mice, we also observed approximately 65% and 60% knock-down of messenger RNA, or mRNA, levels, respectively, measured 24 hours after each of three daily intravenous treatments of 1 mg/kg siRNA PNPs. We continued to observe knockdown of PLK-1 mRNA at 0.1 and 0.01 mg/kg siRNA PNPs in the same study. These results are shown in the graphics below.



We have tested our siRNA containing PNPs in mice and have established a favorable safety profile, allowing us to deliver high amounts of siRNA without the incidence of serious adverse effects in the animal tumor models. Human complement pathways are not activated, and we do not see a cytokine response as a result of siRNA containing PNP administration in mice.

If our platform is able to improve RNA delivery into tumor cells, we believe this would be valuable to companies that are pursuing RNA-based therapeutic approaches in oncology. We do not have the expertise to identify, select, secure and manufacture proprietary anti-cancer RNAs that would be delivered using our platform. Accordingly, we do not intend to focus our business on RNA-based therapeutic approaches, and we would seek to explore this aspect of our platform in collaboration with companies that have expertise in RNA-based therapeutic approaches.

## Competition

The biopharmaceutical industry is characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technology, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and governmental agencies and public and private research institutions. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.



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Many of our competitors have significantly greater financial, manufacturing, marketing, drug development, technical and human resources than we do. These competitors also compete with us in recruiting and retaining top qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Due to the large unmet medical need, global demographics and relatively attractive reimbursement dynamics, the oncology market is fiercely competitive. In each indication we are pursuing, there are approved cancer therapeutics and agents under clinical development for use as monotherapy and combination therapy. Each of the top ten global pharmaceutical companies and most of the mid-size pharmaceutical companies has a strong research and development and commercial presence in oncology. Smaller companies also focus on oncology, including companies such as ARIAD Pharmaceuticals, Inc., Agios Pharmaceuticals, Inc., BIND Therapeutics, Inc., Clovis Oncology, Inc., Endocyte, Inc., Epizyme, Inc., ImmunoGen, Inc., Incyte Corporation, Infinity Pharmaceuticals, Inc., MacroGenics, Inc., Merrimack Pharmaceuticals, Inc., OncoMed Pharmaceuticals, Inc., Onconova Therapeutics, Inc., Pharmacyclics, Inc., Puma Biotechnology, Inc., Seattle Genetics, Inc. and TESARO, Inc.

Several companies are marketing and developing oncology products. Companies with marketed nanopharmaceutical oncology products include Celgene Corporation (Abraxane (nab-paclitaxel) indicated for breast cancer, NSCLC and pancreatic cancer) and Spectrum Pharmaceuticals (Marqibo (vincristine sulfate liposome injection) indicated for relapsed Philadelphia chromosome-negative acute lymphoblastic leukemia). Companies with nanopharmaceutical oncology product candidates in clinical development include BIND Therapeutics, Inc. (BIND 014 for NSCLC and metastatic castration-resistant prostate cancer), Celator Pharmaceuticals, Inc. (CPX-351 for acute myeloid leukemia), Celsion Corporation (ThermoDox (lyso-thermosensitive liposomal doxorubicin) for solid tumors), Cytimmune Sciences, Inc. (CYT-6091 for oncology and autoimmune diseases) and Supratek Pharma Inc. (SP1049C for solid tumors). In addition, at least two companies have oncology product candidates in clinical development that are camptothecin reformulations: Merrimack Pharmaceuticals' liposomal irinotecan (MM-398 for pancreatic and colorectal cancer) and Nektar Therapeutics' etirinotecan pegol (NKTR102 for breast cancer).

We believe CRLX101 is the only non-nucleotide oncology product candidate in clinical development that targets the HIF pathway. Santaris Pharma A/S has a Locked Nucleic Acid oncology product candidate that targets HIF-1a (SPC-2968, which was referred to as EZN-2968 when it was being developed by Enzon Pharmaceuticals, Inc.). In addition, there are drugs and biologics in development that could compete with CRLX101 in each of its lead indications: relapsed renal cell carcinoma, relapsed ovarian cancer and neoadjuvant rectal cancer.

In relapsed renal cell carcinoma, the six FDA-approved therapies commonly used for treatment represent only two mechanistic classes—those that target VEGF signaling, including TKIs, and mTORIs—and there are no approved cytotoxic drugs. In relapsed ovarian cancer, there are multiple approved drugs and multiple companies developing therapeutic candidates in various stages of development. For example, OncoMed Pharmaceuticals is developing demcizumab, and Roche is developing DMOT4039A. Although each of these agents has the potential to be used in combination with CRLX101, thereby expanding the market for CRLX101, they also have the potential to compete with CRLX101.

In neoadjuvant rectal cancer, Xeloda, which is marketed by Roche, was approved for use in rectal cancer in 2005. Xeloda is used in the neoadjuvant setting in combination with radiotherapy, and this chemo-radiotherapeutic regimen represents the current standard of care in the United States. CRLX101 is being developed as a combination agent to be used with radiotherapy and Xeloda. In neoadjuvant rectal cancer, we are only aware of one competitor: Isofol Medical is developing a molecule that is currently labeled [6R] 5,10-methylenetetrahydrofolate.

Several companies are developing taxane-containing nanoparticles for oncology that are competitors to CRLX301. For example, BIND Therapeutics Inc.'s BIND-014 is a docetaxel containing nanoparticle in active clinical development. Nippon Kayaku's NK105 is a paclitaxel micelle nanoparticle in late stage clinical

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development for breast and stomach cancer. Drug-polymer conjugated nanoparticles are also being developed, such as Nektar Therapeutics' NKTR-105.

The key competitive factors affecting the success of all our therapeutic product candidates, if approved, are likely to be their efficacy, safety, dosing convenience, price, the level of generic competition and the availability of reimbursement from government and other third party payors.

### **Intellectual Property**

We strive to protect the proprietary technologies that we believe are important to our business, including seeking and maintaining patent protection intended to protect, for example, the technology platforms used to generate our product candidate, related technologies and/or other aspects of the inventions that are important to our business. We also rely on trade secrets and careful monitoring of our proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

We plan to continue to expand our intellectual property estate by filing patent applications directed to dosage forms, methods of treatment and additional compositions created or identified from our platform and ongoing development of our product candidates. Our success will depend significantly on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business; defend and enforce our patents; maintain our licenses to use intellectual property owned by third parties; preserve the confidentiality of our trade secrets; and operate without infringing the valid and enforceable patents and other proprietary rights of third parties. We also rely on know-how, continuing technological innovation and in-licensing opportunities to develop, strengthen, and maintain our proprietary positions.

A third party may hold intellectual property, including patent rights that are important or necessary to the development of our product candidates or use of our platform. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our product candidates, in which case we would be required to obtain a license from these third parties on commercially reasonable terms, or our business could be harmed, possibly materially.

The patent positions of biopharmaceutical companies like us are generally uncertain and involve complex legal, scientific and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and patent scope can be reinterpreted by the courts after issuance. Moreover, many jurisdictions permit third parties to challenge issued patents in administrative proceedings which may result in further narrowing or even cancellation of patent claims. Consequently, we do not know whether any of our product candidates will be protectable or remain protected by enforceable patents. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection from competitors. Any patents that we own or license may be challenged, narrowed, circumvented or invalidated by third parties.

Because patent applications in the United States and certain other jurisdictions are maintained in secrecy for 18 months or potentially even longer, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain of the priority of inventions covered by pending patent applications. Moreover, we may have to participate in interference proceedings declared by the United States Patent and Trademark Office, or USPTO, to determine priority of invention.

### ***Patents***

Our patent portfolio includes issued patents and pending applications worldwide. These patents and applications fall into three broad categories: (1) covalent linkage of therapeutic agents to a cyclodextrin-containing polymer, or CDP, as in CRLX101 and CRLX301; (2) association of a therapeutic agent to a polymer and (3) polymeric nanoparticles which can be used to deliver various types of therapeutic agents including large molecules.

***Cyclodextrin Polymer (CDP) Platform Technology: Covalent Linkage of Therapeutic Agent to Cyclodextrin-Containing Polymer: CRLX101 and CRLX301***

We own, or exclusively license from Caltech, 13 patent families generally related to CDPs and/or to linear CDP-therapeutic agent conjugates (CDP-agent conjugates), including CRLX101 and CRLX301, methods of delivering the CDP-agent conjugates, methods of making the CDP-agent conjugates and methods of treating various disorders by administering the CDP-agent conjugates. These patent families include 18 issued United States patents and 25 issued foreign counterparts, as well as over 19 pending United States patent applications and over 54 pending foreign applications. These patents and applications, if issued, generally will expire between 2018 and 2034. These patent families include:

- One family of patents and patent applications licensed from Caltech claiming linear cyclodextrin-containing polymers, methods of making the polymers, compositions containing the polymers, and methods of delivering the compositions (one issued United States patent expires in 2018 and foreign counterparts, where issued, expire in 2019). Foreign counterparts are issued and/or pending in other major markets, including Europe, China and Japan, as well as several other countries;
- One family of Cerulean-owned patents and patent applications claiming linear cyclodextrin-containing polymers and CDP-agent conjugates and formulations, methods of delivering and methods of making CDP-agent compositions, CRLX101 composition of matter and formulations, methods of delivering and methods of making the CRLX101 compositions, composition of matter and formulations relating to CRLX301, and methods of delivering and methods of making the compositions relating to CRLX301 (issued United States patents expire in 2023 or 2024 and foreign counterparts, where issued, expire in 2023). This family was assigned to us pursuant to our agreements with Calando. Foreign counterparts are issued and/or pending in other major markets, including Europe, China and Japan, as well as several other countries;
- Three families of Cerulean-owned patent applications claiming methods of treating disorders, including cancers such as ovarian cancer and colorectal cancer (e.g., rectal cancer) by administering CRLX101, alone or in combination with other therapeutic agents (e.g., angiogenesis inhibitors) at selected doses and dosing schedules (United States patents and foreign counterparts would, if issued, expire between 2030 and 2034). One of these three families of Cerulean-owned patent applications was assigned to us under our agreements with Calando. Foreign counterparts for at least some of these families are pending in other major markets, including Europe, China and Japan, as well as several other countries;
- Three families of Cerulean-owned patent applications claiming methods of treating various disorders, including, for example, cancer and inflammatory disorders, by administering CDP-agent conjugates, including for example, CRLX101 and CRLX301 and other CDP-agent conjugates (United States patents and foreign counterparts would, if issued, expire in 2031 or 2033). Foreign counterparts for at least some of these families are pending in other major markets, including Europe, China and Japan, as well as several other countries;
- One family of Cerulean-owned patent applications claiming CDP-taxane conjugate compositions of matter, including compositions relating to CRLX301, and methods of treating disorders, including cancer, by administering such a CDP-taxane conjugate alone or in combination with other therapeutic agents, at selected doses and dosing schedules (United States patents and foreign counterparts would, if issued, expire between 2030 and 2032). Foreign counterparts are pending in other major markets, including Europe, China and Japan, as well as several other countries; and
- Four families of Cerulean-owned patent applications claiming technology relating to potential future product candidates, including CDP conjugates in which other therapeutic agents such as epothilones, proteasome inhibitors, peptides, and janus kinase inhibitors are covalently linked to the linear cyclodextrin-containing polymer (United States patents and foreign counterparts would, if issued, expire between 2030 and 2034). One of these four families of Cerulean-owned patent applications was assigned to us under our agreements with Calando.

***Additional CDP Platform Technology: Association of Therapeutic Agent to Polymer***

We own, or exclusively license from Caltech and Calando, six patent families generally directed to supramolecular complexes that include linear cyclodextrin-containing polymers and therapeutic agents where the polymers are cross-linked, e.g., with cross-linking agents. These patent families include over eight issued United States patents and over 11 issued foreign counterparts, as well as, over five United States patent applications and several foreign applications. These patents and patent applications, if issued, generally will expire between 2019 and 2030. These patent families include:

- One family of patents and patent applications licensed from Caltech claiming supramolecular complexes of linear cyclodextrin-containing polymers and therapeutic agents wherein the polymers are cross-linked, e.g., with cross-linking agents, and methods of making and delivering the supramolecular complexes (one issued United States patent expires in 2018 and foreign counterparts expire in 2019). A foreign counterpart patent issued in Europe; no other foreign protection is being pursued;
- One family of patents and patent applications licensed from Calando and Caltech claiming compositions that include the following components: (1) a cyclodextrin-containing polymer, (2) a complexing agent which includes a moiety that forms an inclusion complex with the cyclodextrin in the linear cyclodextrin-containing polymer and is covalently linked to a stabilizer or agent that increases solubility of the composition, a ligand which is covalently linked to the stabilizer or agent which increases solubility of the composition; and (3) a therapeutic agent, and methods of making these compositions and methods of treating patients by administering the compositions (issued United States patents expire between 2021 and 2022 and foreign counterparts, where issued, expire in 2021). Foreign counterparts are issued and/or pending in other major markets, including China and Japan, as well as several other countries;
- Three families of patents and patent applications licensed from Calando claiming compositions comprising polynucleotides and cyclodextrin-containing polymers, and methods for the delivery of polynucleotides with a cyclodextrin-containing polymer (issued United States patents expire between 2026 and 2030 and foreign counterparts, where issued, expire between 2022 and 2029); and
- One family of Cerulean-owned patents and patent applications claiming polymer compositions that include a (1) linear biocompatible polymer with a plurality of inclusion hosts, (2) linking molecules, each linking molecule comprising moieties that form inclusion complexes with the inclusion hosts, and (3) at least one therapeutic agent covalently attached to a moiety that forms an inclusion complex with the inclusion hosts, wherein the linking molecules cross-link the polymer solely through inclusion complexes (one issued United States patent expires in 2028 and any additional United States patents, if issued, would expire in 2023; we are not pursuing foreign protection for this family).

***Polymeric Nanoparticles (PNP) Platform Technology: Small and Large Molecule Delivery***

We own, or exclusively license from MIT, 12 patent families which generally relate to nanoparticles containing selected polymers linked to a therapeutic agent or another molecule. These patent families include 17 United States patent applications and 37 foreign applications. These patent applications, if issued, generally will expire between 2025 and 2034. These patent families include:

- Two families of patent applications licensed from MIT claiming nanoparticles containing selected polymers covalently linked to a therapeutic agent and nanometer-sized vehicles that include radionuclides for use in diagnostics (United States patents, if issued, would expire in 2025 or 2026 and foreign counterparts, if issued, would expire in 2025) A foreign counterpart for one of these families is pending in Europe;
- One family of Cerulean-owned patent applications claiming nanoparticles that include polymer-therapeutic agent conjugates, amphiphilic polymers and surfactants (United States patents and foreign counterparts, if issued, would expire in 2030). Foreign counterparts are pending in other major markets, including Europe, China and Japan, as well as several other countries ;

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- Three families of Cerulean-owned patent applications claiming nanoparticles that include various combinations of polymer-therapeutic agent conjugates, amphiphilic polymers, cationic moieties and surfactants wherein the therapeutic agent is a nucleic acid agent (e.g., siRNA, mRNA, antisense molecule) and their use in nucleic acid delivery (United States patents and foreign counterparts, if issued, would expire between 2031 and 2034). Foreign counterparts for at least some of these families are pending in other major markets, including Europe, China and Japan, as well as several other countries;
- One family of Cerulean-owned patent applications claiming nanoparticles that include various combinations of polymer-therapeutic agent conjugates, amphiphilic polymers, cationic moieties and surfactants wherein the therapeutic agent is a polypeptide (United States patents and foreign counterparts, if issued, would expire in 2031) Foreign counterparts are pending in other major markets, including Europe, China and Japan, as well as several other countries ;
- Two families of Cerulean-owned patents and patent applications claiming PNPs that include therapeutic agents such as epothilones and proteasome inhibitors that are covalently linked to the polymers contained in the PNP (United States patents, if issued, would expire in 2030; we are not pursuing foreign protection for this family); and
- Three families of Cerulean-owned patents and patent applications claiming optimized PNP formulations that include the use of cyclic oligosaccharides as lyoprotectants, PNP platform technology to treat various disorders such as neurological and metabolic disorders, and optimized methods of making PNPs (United States patents, if issued, would expire between 2031 and 2033 and foreign counterparts would expire in 2033).

### ***Patent Term***

The base term of a United States patent is 20 years from the filing date of the earliest-filed non-provisional patent application from which the patent claims priority. The term of a United States patent can be lengthened by patent term adjustment, which compensates the owner of the patent for administrative delays at the USPTO. In some cases, the term of a United States patent is shortened by terminal disclaimer that reduces its term to that of an earlier-expiring patent.

The term of a United States patent may be eligible for patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Act, to account for at least some of the time the drug is under development and regulatory review after the patent is granted. With regard to a drug for which FDA approval is the first permitted marketing of the active ingredient, the Hatch-Waxman Act allows for extension of the term of one United States patent that includes at least one claim covering the composition of matter of an FDA-approved drug, an FDA-approved method of treatment using the drug, and/or a method of manufacturing the FDA-approved drug. The extended patent term cannot exceed the shorter of five years beyond the non-extended expiration of the patent or 14 years from the date of the FDA approval of the drug. Some foreign jurisdictions, including Europe and Japan, have analogous patent term extension provisions which allow for extension of the term of a patent that covers a drug approved by the applicable foreign regulatory agency. In the future, if and when our pharmaceutical products receive FDA approval, we expect to apply for patent term extensions on patents covering those products, their methods of use, and/or methods of manufacture.

### ***Trade Secrets***

In addition to patents, we rely on trade secrets and know-how to develop and maintain our competitive position. We typically rely on trade secrets to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. For example, significant elements of the making and formulating of our products are based on trade secrets and know-how that are not publicly disclosed. We protect trade secrets and know-how by establishing confidentiality agreements and invention assignment agreements

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with our employees, consultants, scientific advisors, contractors and commercial partners. These agreements provide that all confidential information developed or made known during the course of an individual or entity's relationship with us must be kept confidential during and after the relationship. These agreements also provide that all inventions resulting from work performed for us or relating to our business and conceived or completed during the period of employment or assignment, as applicable, shall be our exclusive property. In addition, we take other appropriate precautions, such as physical and technological security measures, to guard against misappropriation of our proprietary technology by third parties.

### **Trademarks**

We also seek trademark protection in the United States and in foreign jurisdictions where available and when appropriate. The name "CERULEAN" is a registered trademark in the United States, Australia, the European Union, Israel, Japan, South Korea, Liechtenstein, Mexico, Norway, Russia, Singapore, Switzerland, Turkey, and the Ukraine and is covered by pending applications for trademark registration in Canada, China, and India. The trademark is solely owned by Cerulean Pharma Inc, in the field of pharmaceutical preparations as well as in the field of diagnostic and prognostic preparations. The Cerulean logo is a registered trademark in the United States and is solely owned by Cerulean Pharma Inc. CERULEAN and the Cerulean logo is a registered trademark in Mexico and is solely owned by Cerulean Pharma Inc. The term "Leadership in Nanopharmaceuticals" is a registered trademark in the United States and is solely owned by Cerulean Pharma Inc. The term "Making Nanopharmaceuticals Big" is covered by a pending United States trademark application and is solely owned by Cerulean Pharma Inc. The symbol <sup>TM</sup> indicates a common law trademark. Other service marks, trademarks and trade names appearing in this prospectus are the property of their respective owners.

### **In-Licenses**

#### *Calando Pharmaceuticals, Inc.*

In June 2009, we entered into two license agreements with Calando, each of which we subsequently amended. Under the first agreement, the CRLX101 Agreement, we obtained rights to Calando's clinical asset then known as IT-101, later renamed CRLX101. Under the second agreement, the Platform Agreement, we obtained rights to Calando's cyclodextrin system for purposes of conjugating or complexing certain other therapeutic agents to the system.

#### *CRLX101 Agreement:*

Under the CRLX101 Agreement, we have a worldwide, royalty bearing, exclusive (even as to Calando) license, with the right to grant sublicenses, to Calando's interest under certain patents, patent applications, and know-how owned or controlled by Calando, to research, develop, make, have made, use, market, offer to sell, distribute, sell and import CRLX101 formulated for intravenous, intrarterial, intrathecal and/or intraperitoneal therapy, to treat and/or prevent disease in humans. As noted below in the description of the Platform Agreement, we have also purchased from Calando certain patents and patent applications. In addition, under the CRLX101 Agreement, Calando transferred ownership of the CRLX101 IND to Cerulean.

Under the CRLX101 Agreement, we are obligated to use commercially reasonable efforts to develop CRLX101 throughout the world and, following the first commercial sale of CRLX101 in a particular country, to make CRLX101 commercially available in such country. These exclusively licensed patent rights are described in more detail above under "Intellectual Property."

Upon entering the CRLX101 Agreement, we paid Calando approximately \$1.3 million, which included the purchase of CRLX101 drug substance and drug product inventory. If we achieve certain development and sales events with CRLX101, we are obligated to pay milestone payments which could total, in the aggregate, \$32.8 million. If we or one of our affiliates sells CRLX101, we are also required to pay tiered royalty payments ranging from low-to mid-single digits, depending on whether or not there is patent protection for CRLX101 at

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the time of sale as a percentage of worldwide net sales. Our royalty payment obligations in a particular country begin on the date of first commercial sale of CRLX101 in that country and end on the later of ten years from the date of first commercial sale of CRLX101 in that country or the expiration of all patents licensed, referred to as Licensed Patent Rights, or purchased, referred to as the Assigned Patent Rights, from Calando which cover CRLX101 in that country. With respect to CRLX 101 that is developed and sold by an unaffiliated third party to whom we grant a license or sublicense under any of the intellectual property that we purchased or licensed from Calando, we are required to pay Calando a percentage of the income we receive from the licensee or sublicensee to the extent attributable to such license or sublicense, subject to certain exceptions. The percentage of such sublicense income that we are obligated to pay Calando is in the low- to mid-double digits, and varies depending on the stage of development of CRLX101 at the time that we first provide or receive draft terms of a license arrangement with the third party that results in a license arrangement, unless the negotiations terminate, in which case the percentage depends on the development stage of CRLX 101 when the negotiations restart.

We have the first right to enforce the Licensed Patent Rights and Assigned Patent Rights, other than one subset of licensed patents which Calando has the sole right to enforce.

We and Calando are required to indemnify each other for losses and expenses in connection with any third party claims arising out of the indemnifying party's breach of the CRLX101 Agreement, the negligence or willful misconduct of the indemnifying party or its affiliates or sublicensees under the CRLX101 Agreement or any product liability arising out of CRLX101 developed, made, used or sold by or on behalf of the indemnifying party or its affiliates or sublicensees.

The CRLX101 Agreement will remain in effect until the expiration of all of our royalty obligations to Calando. We also have the right to terminate the CRLX101 Agreement for any reason on thirty days prior notice to Calando, in which case, unless we certify that the termination was due to specified safety concerns with CRLX101, we will grant Calando an exclusive (even as to Cerulean), royalty-free license, under the Assigned Patent Rights, to research, develop, make, have made, use, market, offer to sell, distribute, sell and import CRLX101, we will assign the IND for CRLX101 to Calando and, if consistent with our business plans, we will discuss granting Calando a license under know-how that we developed that relates to CRLX101. If we fail to meet our diligence obligations under the CRLX101 Agreement after a specified cure period, Calando may convert the license to a non-exclusive license and we will have to grant Calando a non-exclusive license under the Assigned Patent Rights to research, develop, make, have made, use, market, offer to sell, distribute, sell and import CRLX101. If the license is converted to a non-exclusive license, the royalties payable to Calando will be reduced by a specified percentage. If we fail to meet our payment obligations under the agreement and are unable to cure such failure within specified time periods, Calando can terminate the agreement, resulting in our loss of rights to CRLX101 and an obligation to grant Calando an exclusive (even as to Cerulean), royalty-free license, under the Assigned Patent Rights to research, develop, make, have made, use, market, offer to sell, distribute, sell and import CRLX101 and to assign the IND for CRLX101 to Calando. If we or one of our affiliates challenges the validity or enforceability of any of the licensed patents, Calando has the right to terminate the agreement. For any breach of the CRLX101 Agreement not described above, the non-breaching party's sole remedy if such breach is not cured within a specified time period is to seek money damages from the breaching party.

### *Platform Agreement:*

Under the Platform Agreement, we have a worldwide, royalty bearing, exclusive (even as to Calando) license, with the right to grant sublicenses, to Calando's interest under certain patents, patent applications, and know-how owned or controlled by Calando (a) to conduct research and development on the cyclodextrin system, including making improvements thereto, in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products and (b) to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products. The field of the license is the treatment and/or prevention of disease in humans. Licensed Products are defined as products conjugated or complexed to the cyclodextrin system, other than any products containing cytolysin, tubulysin, certain second generation

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epothilones or a nucleic acid, which we refer to as Retained Products, and CRLX101, which is covered by the CRLX101 Agreement described above. Under the Platform Agreement, we are obligated to use commercially reasonable efforts to develop Licensed Products throughout the world and, following the first commercial sale of Licensed Product in a particular country, to make Licensed Product commercially available in such country. These exclusively licensed patent rights, as well as patent rights assigned to us pursuant to the agreement, are described in more detail above under "Intellectual Property."

Upon entering the Platform Agreement, we paid to Calando approximately \$1.2 million, which included the purchase of the Assigned Patent Rights and cyclodextrin-containing polymers and precursor inventory. We granted Calando a worldwide, royalty-free, exclusive (even as to Cerulean), perpetual and irrevocable license, with the right to grant sublicenses, under the Assigned Patent Rights to research, develop, make, have made, use, market, offer to sell, sell and import the Retained Products.

If we achieve certain development and sales events with respect to any Licensed Product, we are obligated to pay milestone payments which could total, in the aggregate, \$18.0 million per Licensed Product. If we or one of our affiliates sells a Licensed Product, we are also required to pay tiered royalty payments ranging from low-to mid-single digits, depending on whether or not there is patent protection at the time of sale, as a percentage of worldwide net sales. Our royalty payment obligations in a particular country begin on the first date of first commercial sale of the Licensed Product in that country and end on the later of ten years from the date of first commercial sale of that Licensed Product in that country or the expiration of all patents licensed or purchased from Calando which cover that Licensed Product in that country. With respect to a licensed product that is developed and sold by a third party to whom we grant a license or sublicense under any of the intellectual property that we purchased or licensed from Calando, we are required to pay Calando a percentage of the income we receive from the licensee or sublicensee to the extent attributable to such license or sublicense, subject to certain exceptions. The percentage of such sublicense income that we are obligated to pay Calando does not exceed the low double digits.

We have the first right to enforce the Licensed Patent Rights and the Assigned Patent Rights, other than one subset of licensed patents which Calando has the sole right to enforce.

We and Calando are required to indemnify each other for losses and expenses in connection with any third party claims arising out of the indemnifying party's breach of the Platform Agreement, the negligence or willful misconduct of the indemnifying party or its affiliates or sublicensees under the Platform Agreement or any product liability arising out of a Licensed Product developed, made, used or sold by or on behalf of the indemnifying party or its affiliates or sublicensees. Calando also indemnifies us for losses and expenses in connection with any third party claim arising out of a Retained Product developed, made, used or sold by or on behalf of Calando or its affiliates or licensees.

The Platform Agreement will remain in effect until the expiration of all of our royalty obligations to Calando. We also have the right to terminate the Platform Agreement for any reason on thirty days prior written notice to Calando, in which case we will grant Calando an exclusive (even as to Cerulean), royalty-free license, under Assigned Patent Rights, to research, develop, make, have made, use, market, offer to sell, distribute, sell and import the Licensed Products and, if consistent with our business plans, we would discuss granting Calando a license under know-how that we developed that relates to the cyclodextrin system or Licensed Products. If we fail to meet our diligence obligations under the agreement after a specified cure period, Calando may convert the license to a non-exclusive license and we will have to grant Calando a non-exclusive license under the Assigned Patent Rights to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products. If the license is converted to a non-exclusive license, the royalties payable to Calando will be reduced by a certain percentage. If we fail to meet our payment obligations under the agreement and are unable to cure such failure within specified time periods, Calando can terminate the agreement, resulting in our loss of rights to the Licensed Products and an obligation to grant Calando an exclusive (even as to Cerulean), royalty-free license, under the Assigned Patent Rights to research, develop, make, have made, use, market, offer to sell,



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distribute, sell and import Licensed Products. If we or one of our affiliates challenges the validity or enforceability of any of the licensed patents, Calando has the right to terminate the agreement. For any breach of the Platform Agreement not described above, the non-breaching party's sole remedy if such breach is not cured within a specified time period is to seek money damages from the breaching party.

### *California Institute of Technology*

Certain of the patents, patent applications, and know-how licensed to us under the CRLX101 Agreement and the Platform Agreement were licensed to Calando by the California Institute of Technology, or Caltech, pursuant to an agreement entered into between Calando and Caltech in May 2000 and subsequently amended, which we refer to as the Calando/Caltech Agreement. In August 2013, we entered into an agreement with Calando and Caltech under which Calando terminated its rights and obligations under the Calando/Caltech Agreement and Caltech agreed to directly honor the exclusive license, including the right to grant further sublicenses, granted to us by Calando under the Caltech intellectual property formerly licensed to Calando.

We are obligated to pay Caltech minimum annual royalties and the costs it incurs to prosecute and maintain the licensed patent rights. We may offset those prosecution and maintenance costs against any milestones or royalties that we owe to Calando under the CRLX101 Agreement or the Platform Agreement.

Following the earlier of our receipt of notice from Calando that it has made certain payments to third parties or the first anniversary of the first commercial sale of a product covered by the Caltech patent rights, we will directly pay to Caltech the amounts that it would have been entitled to receive from Calando with respect to our sales of the licensed products, and we will pay to Calando the remainder of the royalties we owe them under the CRLX101 Agreement and the Platform Agreement.

We have the first right to enforce the Caltech licensed patent rights.

We may terminate our rights and obligations to Caltech and Calando with respect to any of the Caltech licensed intellectual property either in its entirety or as to any jurisdiction or as to any part of the intellectual property upon a specified period of prior notice to Caltech and Calando. Caltech has the right to terminate the agreement if we fail to make a payment, or otherwise materially breach the agreement, and fail to cure such breach within specified grace periods.

### *Massachusetts Institute of Technology*

In December 2006, we entered into an exclusive license agreement with MIT, which we refer to as the MIT Agreement. The MIT Agreement has been amended four times, including to extend or suspend the time period for achieving certain diligence milestones, and the most recent amendment was entered into in August 2013. Under the MIT Agreement, we have a worldwide exclusive license, with the right to grant sublicenses, in all human and veterinary therapeutic and diagnostic areas, under certain patent rights owned by MIT, to develop, make, have made, use, sell, offer to sell, lease and import products covered by the licensed patent rights, and to develop and perform licensed processes. These exclusively licensed patent rights are described in more detail above under "Intellectual Property."

We are required to use commercially diligent efforts to develop licensed products or licensed processes, to introduce licensed products or licensed processes into the commercial market and thereafter to make licensed products or licensed processes reasonably available to the public. By March 1, 2015, we are required to present MIT with a plan, satisfactory to MIT, to develop the licensed products and a proposal for specific diligence terms for licensed products. We and MIT will then negotiate in good faith the diligence terms, but if we and MIT are unable to agree to such diligence terms by the end of June 2015, MIT will have the right, in its sole discretion, to terminate the agreement. If, prior to the end of June 2015, MIT becomes aware that another party with whom we are not in active negotiations wishes to obtain a license under the patent rights and we have not yet submitted a

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satisfactory development plan to MIT, MIT will request a development plan from us and from the other party, and MIT will select either our development plan or the other party's development plan based on MIT's determination of which plan is in the best interests of commercializing the licensed patents. If MIT selects the other party's development plan, MIT may, in its sole discretion, terminate the exclusive license agreement with us, limit our field of use under the exclusive license agreement, or convert our exclusive license to a non-exclusive license.

Under the MIT Agreement, as of December 31, 2013, we had paid MIT approximately \$0.5 million in the aggregate, consisting of annual maintenance fees and reimbursement of patent-related fees incurred by MIT, and we issued a certain number of shares of our common stock to MIT and individuals affiliated with MIT. We are obligated to pay MIT annual license maintenance fees that escalate beginning in January 2015. We are also obligated to pay royalties at a low single digit percentage of net sales of licensed products or licensed processes by us, our affiliates or our sublicensees. We are also required to pay a percentage, in the low double digits, of the payments we receive from our sublicensees which are attributable to the granting of a sublicense under the licensed patents, subject to certain exclusions.

MIT retains the right to practice the licensed patent rights for research, teaching and educational purposes. We may not assert the licensed patents against any non-profit entity using the licensed patents for research purposes not benefitting a for-profit entity.

Any of the licensed patent rights claiming inventions that were funded by the government are subject to certain rights retained by the United States government under a law commonly called the Bayh-Dole Act. These rights include, among other things, a royalty-free, non-exclusive license for the United States government to practice these inventions. Any products used or sold in the United States and covered by these patents must be substantially manufactured in the United States, unless a waiver is obtained from the U.S. government.

MIT controls prosecution and maintenance of the licensed patents. We are responsible for all costs associated with filing, prosecuting and maintaining the licensed patent rights. As long as our license remains exclusive, we have the first right to enforce the licensed patents against infringers in the licensed field.

We are required to indemnify MIT for any liabilities and expenses in connection with any claims concerning any licensed product, process or service under the MIT Agreement.

We have the right to terminate the agreement for any reason by providing MIT with a specified amount of prior written notice. MIT has the right to terminate the agreement if we cease to carry on our business related to the agreement, if we fail to pay any amounts due and payable under the agreement, subject to a grace period, or if we materially breach the agreement and fail to cure such breach within specified grace periods. The MIT Agreement otherwise terminates, on a country-by-country basis, upon the expiration or abandonment of all licensed patents and patent applications.

### *The Research Foundation of State University of New York on behalf of University at Buffalo*

In August 2007, we entered into an exclusive license agreement with The Research Foundation of State University of New York on behalf of University at Buffalo, which we refer to as the SUNY Agreement. The SUNY Agreement has been amended four times, including to extend the time period for achieving certain diligence milestones, and the most recent amendment was entered into in September 2013. Under the SUNY Agreement, we have a worldwide, royalty bearing, exclusive license, with the right to grant sublicenses, for the treatment and/or prevention of disease in humans, under certain patent rights owned by SUNY, to research, develop, make, have made, use, offer for sale, sell, have sold, import and export certain products covered by the licensed patent rights. These exclusively licensed patent rights are described in more detail, as specified in the SUNY Agreement, above under "Intellectual Property."

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We are required to diligently proceed with the research, development, manufacture, use and sale of licensed products under the agreement, to use commercially reasonable efforts to commercialize and market licensed products as soon as practicable, and to make licensed products available on commercially reasonable terms once introduced into the marketplace. In particular, we are required to fulfill specific development and regulatory milestones by particular dates and, during each calendar year prior to the first commercial sale of a licensed product, spend a specified amount on the research, development or commercialization of licensed products or precursor technologies or products, and if we fail to do so SUNY may elect to increase our license maintenance fee and, in the case of a second failure, our exclusive license will be converted to a non-exclusive license.

Under the SUNY Agreement, as of December 31, 2013, we had paid SUNY approximately \$0.2 million in the aggregate, consisting of an upfront license fee, a field-of-use expansion fee, annual maintenance fees and reimbursement of patent-related fees incurred by SUNY. We are also obligated to pay SUNY an escalating annual license maintenance fee and development milestone payments which could total, in the aggregate, less than \$0.1 million and royalties in the low single digits as a percentage of net sales by us, our affiliates or our sublicensees of licensed products.

SUNY retains the right to practice the licensed patent rights for educational purposes and internal research and development, including collaborations with researchers at other academic and non-profit research institutions. Any of the licensed patent rights claiming inventions that were funded by the government are subject to certain rights retained by the United States government under a law commonly called the Bayh-Dole Act. These rights include, among other things, a royalty-free, non-exclusive license for the United States government to practice these inventions. Any products used or sold in the United States and covered by these patents must be substantially manufactured in the United States, unless a waiver is obtained from the U.S. government.

SUNY controls prosecution and maintenance of the licensed patents, although we have an approval right over certain actions. We reimburse SUNY for all reasonable costs associated with filing, prosecuting and maintaining the licensed patent rights. SUNY has the first right to enforce the licensed patents against infringers in the licensed field. We have the right to enforce the licensed patents if SUNY does not institute an infringement action within a specified period of time.

We are required to indemnify SUNY for any claims and expenses resulting from the exercise or practice of the license granted to us, including liabilities arising from the production, manufacture, sale, use, lease or advertisement of the licensed products.

The SUNY Agreement will remain in effect until the expiration of all licensed patents and patent applications, unless we elect to earlier terminate the entire license, or the license with respect to certain patent families, subject to providing SUNY with a specified amount of prior written notice. SUNY has the right to terminate the SUNY Agreement if we have a bankruptcy action filed against us, have a receiver appointed for us, or if we materially breach the agreement, and fail to cure such situation or breach within a specified grace period. The SUNY Agreement will automatically terminate if we cease to carry on our business, file for bankruptcy, become insolvent, make an assignment for the benefit of creditors, or we challenge the validity or enforceability of any of the licensed patents.

## **Manufacturing**

We currently contract with third parties for the manufacture of our product candidates for preclinical studies and clinical trials and intend to do so in the future. We do not own or operate manufacturing facilities for the production of clinical or commercial quantities of our product candidates. We currently have no plans to build our own clinical or commercial scale manufacturing capabilities. To meet our projected needs for commercial manufacturing, third parties with whom we currently work will need to increase their scale of production or we will need to secure alternate suppliers. Although we rely on contract manufacturers, we have personnel with manufacturing experience to oversee our relationships with contract manufacturers.

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Our contract manufacturers have manufactured what we believe to be sufficient quantities of CRLX101 drug product to support clinical trials in through the first half of 2015, and we will begin manufacturing in 2014 for additional supply to continue clinical development of CRLX101 for the second half of 2015 and beyond. The current drug substance and drug product manufacturing processes for CRLX101 are scaled to support phase 2/3 clinical development under current Good Manufacturing Practice, or cGMP, standards, and we believe are adequate to support further development and scale up for commercial demand at a reasonable cost of goods. While we believe that our existing supplier of drug substance is capable of producing drug substance in commercial quantities, we have also identified a new third party manufacturer capable of providing commercial quantities of drug product. If we are unable to arrange for third-party manufacturing with this or other alternative vendors, or fail to do so on commercially reasonable terms, we may not be able to successfully produce and market CRLX101.

Processes for producing CRLX301 have been developed and used successfully to produce drug substance and drug product for GLP safety studies. These processes are currently being used to produce cGMP supplies for Phase 1 clinical development.

Both CRLX101 and CRLX301 include complicated polymer backbone structures as well as cytotoxic agents. Although these characteristics may limit alternative third party manufacturers, we believe that there are alternate sources of supply that can satisfy our clinical and commercial requirements, and we have or are pursuing back-up suppliers for certain stages of the manufacturing process. We cannot be certain, however, that identifying and establishing relationships with additional alternate sources, if necessary, would not result in significant delay or material additional costs.

### **Sales and Marketing**

We intend to build the commercial infrastructure in the United States necessary to effectively support the commercialization of CRLX101, if approved, and future oncology products, if approved. The commercial infrastructure for specialty oncology products typically consists of a targeted, specialty sales force that calls on a limited and focused group of physicians supported by sales management, internal sales support, an internal marketing group and distribution support. Additional capabilities important to the oncology marketplace include the management of key accounts such as managed care organizations, group-purchasing organizations, specialty pharmacies, oncology group networks and government accounts.

Based on the number of physicians who treat renal cell carcinoma, ovarian, and rectal cancer and the size of competitive sales forces, we believe that we can effectively target the relevant U.S. market with a focused sales force. If CRLX101 is approved in additional indications, we might need to increase the number of representatives. To develop the appropriate U.S. commercial infrastructure, we will have to invest significant amounts of financial and management resources.

In the future, we may utilize one or more strategic partners to optimally commercialize CRLX101 and our other products globally.

### **Government Regulation**

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions, including the European Union, extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export, of pharmaceutical products. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources and the successful outcome of those processes cannot be guaranteed.

### ***Review and Approval of Drugs in the United States***

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval may subject an applicant and/or sponsor to a variety of administrative or judicial sanctions, including refusal by the FDA to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters and other types of letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement of profits, or civil or criminal investigations and penalties brought by the FDA and the Department of Justice or DOJ or other governmental entities.

An applicant seeking approval to market and distribute a new drug product in the United States must typically undertake the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's good laboratory practice, or GLP, regulations;
- submission to the FDA of an IND, which must take effect before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, representing each clinical site before each clinical trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with good clinical practices, or GCP, to establish the safety and efficacy of the proposed drug product for each indication;
- preparation and submission to the FDA of a new drug application, or NDA;
- review of the product by an FDA advisory committee, where appropriate or if applicable;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities at which the product, or components thereof, are produced to assess compliance with current Good Manufacturing Practices, or cGMP, requirements and to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity;
- payment of user fees and securing FDA approval of the NDA; and
- compliance with any post-approval requirements, including Risk Evaluation and Mitigation Strategies, or REMS, and post-approval studies required by the FDA.

### ***Preclinical Studies***

Preclinical studies include laboratory evaluation of the purity and stability of the manufactured drug substance or active pharmaceutical ingredient and the formulated drug or drug product, as well as *in vitro* and animal studies to assess the safety and activity of the drug for initial testing in humans and to establish a rationale for therapeutic use. The conduct of preclinical studies is subject to federal regulations and requirements, including GLP regulations. The results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and plans for clinical studies, among other things, are submitted to the FDA as part of an IND. Some long-term preclinical testing, such as animal tests of reproductive adverse events and carcinogenicity, may continue after the IND is submitted.

### ***Human Clinical Studies in Support of an NDA***

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include, among other things, the requirement that all research subjects provide their informed consent in writing before their participation in

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any clinical trial. Clinical trials are conducted under written study protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to a proposed clinical trial and places the trial on clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin.

In addition, an IRB representing each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must conduct continuing review and reapprove the study at least annually. The IRB must review and approve, among other things, the study protocol and informed consent information to be provided to study subjects. An IRB must operate in compliance with FDA regulations. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health for public dissemination on their ClinicalTrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined:

Phase 1: The drug is initially introduced into healthy human subjects or patients with the target disease (e.g. cancer) or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness and to determine optimal dosage.

Phase 2: The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.

Phase 3: The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution, or an institution it represents, if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients. The FDA will typically inspect one or more clinical sites to assure compliance with GCP and the integrity of the clinical data submitted.

### *Investigator Sponsored Trials*

Investigator sponsored trials are clinical trials where the investigator of the trial is also the "sponsor" of the trial for regulatory purposes. An "investigator" conducts clinical investigations and is the person under whose immediate direction the study drug is administered or dispensed to patients. A "sponsor" initiates and takes responsibility for a clinical investigation. A person who both initiates and conducts a clinical trial, and is responsible for all regulatory requirements, is designated as a "sponsor-investigator" by the FDA. Clinical investigators at academic medical centers who initiate clinical trials with a lawfully marketed drug to be used in a patient population or indication not within the official labeling often fit within this designation. In addition, as is the case with our investigator-sponsored trials, a company may provide a sponsor-investigator with supply of its unapproved product candidate and funding for the trial. Investigators who initiate and conduct such trials are responsible for obtaining an IND from the FDA and for ensuring compliance with the IND and associated regulatory requirements. As provided by the FDA's regulations, the sponsor of a clinical trial is responsible for, among other things, selecting qualified investigators, providing them with the information they need to conduct the trial properly, ensuring proper monitoring of the

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trial, ensuring that the trial is conducted in accordance with the protocols contained in the IND, maintaining an effective IND with respect to the trial, and ensuring that the FDA and all participating investigators are promptly informed of significant new adverse effects or risks with respect to the drug. In contrast, in a company-sponsored trial, the pharmaceutical company whose drug will be studied is the sponsor of the trial and, as such, is responsible for ensuring compliance with all regulatory requirements, including obtaining the IND.

In connection with our ongoing investigator sponsored trials of CRLX101, we have entered into agreements with the institutions at which the trials are being conducted. The terms of these agreements are customary and generally provide that (a) the institution is responsible for obtaining and maintaining any necessary IND for the trial, for conducting the trial in accordance with an agreed upon protocol and applicable regulatory requirements and for safety reporting to us and the FDA, (b) the institution grants to us a license to use the trial data for any legally permissible purpose and assigns to us all intellectual property rights relating to the trial drug developed during the course of the agreement, (c) we are responsible for supplying the trial drug and making agreed upon payments to the institution to fund the trial and (d) the term of the agreement is the duration of the applicable trial, however, the agreement can be terminated for convenience with notice, upon the request of an applicable regulatory agency, for safety reasons or following an uncured material breach by the other party.

### *Section 505(b)(2) NDAs*

NDAs for most new drug products generally are based on two full clinical studies which must contain substantial evidence of the safety and efficacy of the proposed new product. These applications are submitted under Section 505(b)(1) of the FDCA. The FDA is, however, authorized to approve an alternative type of NDA under Section 505(b)(2) of the FDCA. This type of application allows the applicant to rely, in part, on the FDA's previous findings of safety and efficacy for a similar product, or published literature. Specifically, Section 505(b)(2) applies to NDAs for a drug for which the investigations made to show whether or not the drug is safe for use and effective in use and relied upon by the applicant for approval of the application "were not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted."

Thus, Section 505(b)(2) authorizes the FDA to approve an NDA based on safety and effectiveness data that were not developed by the applicant. NDAs filed under Section 505(b)(2) may provide an alternate and potentially more expeditious pathway to FDA approval for new or improved formulations or new uses of previously approved products. If the 505(b)(2) applicant can establish that reliance on the FDA's previous approval is scientifically appropriate, the applicant may eliminate the need to conduct certain preclinical or clinical studies of the new product. The FDA may also require companies to perform additional studies or measurements to support the change from the approved product. The FDA may then approve the new drug candidate for all or some of the label indications for which the referenced product has been approved, as well as for any new indication sought by the Section 505(b)(2) applicant.

### *Submission of an NDA to the FDA*

Assuming successful completion of required clinical testing and other requirements, the results of the preclinical and clinical studies, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the drug product for one or more indications. Under federal law, the submission of most NDAs is additionally subject to an application user fee, currently exceeding \$2.1 million, and the sponsor of an approved NDA is also subject to annual product and establishment user fees, currently exceeding \$104,000 per product and \$554,000 per establishment. These fees are typically increased annually.

The FDA conducts a preliminary review of an NDA within 60 days of its receipt and informs the sponsor by the 74<sup>th</sup> day after the FDA's receipt of the submission to determine whether the application is sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA

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for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA has agreed to specified performance goals in the review process of NDAs. Most such applications are meant to be reviewed within ten months from the date of filing, and most applications for “priority review” products are meant to be reviewed within six months of filing. The review process may be extended by the FDA for three additional months to consider new information or clarification provided by the applicant to address an outstanding deficiency identified by the FDA following the original submission.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is or will be manufactured. These pre-approval inspections usually cover all facilities associated with an NDA submission, including drug component manufacturing (such as Active Pharmaceutical Ingredients), finished drug product manufacturing, and control testing laboratories. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP.

In addition, as a condition of approval, the FDA may require an applicant to develop a risk evaluation and mitigation strategy or REMS. REMS use risk minimization strategies beyond the professional labeling to ensure that the benefits of the product outweigh the potential risks. To determine whether a REMS is needed, the FDA will consider the size of the population likely to use the product, seriousness of the disease, expected benefit of the product, expected duration of treatment, seriousness of known or potential adverse events and whether the product is a new molecular entity. REMS can include medication guides, physician communication plans for healthcare professionals, and elements to assure safe use, or ETASU. ETASU may include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring and the use of patient registries. The FDA may require a REMS before approval or post-approval if it becomes aware of a serious risk associated with use of the product. The requirement for a REMS can materially affect the potential market and profitability of a product.

The FDA is required to refer an application for a novel drug to an advisory committee or explain why such referral was not made. Typically, an advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

### *Fast Track, Breakthrough Therapy and Priority Review*

The FDA is authorized to designate certain products for expedited review if they are intended to address an unmet medical need in the treatment of a serious or life-threatening disease or condition. These programs are fast track designation, breakthrough therapy designation and priority review designation.

Specifically, the FDA may designate a product for fast track review if it is intended, whether alone or in combination with one or more other drugs, for the treatment of a serious or life-threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. For fast track products, sponsors may have greater interactions with the FDA and the FDA may initiate review of sections of a fast track product’s NDA before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a fast track product may be effective. The sponsor must also provide, and the FDA must approve, a schedule for the submission of the remaining information and the sponsor must pay applicable user fees. However, the FDA’s time period goal for reviewing a fast track application does not begin until the last section of the NDA is submitted. In addition, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.



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Second, in 2012, Congress enacted the Food and Drug Administration Safety and Improvement Act, or FDASIA. This law established a new regulatory scheme allowing for expedited review of products designated as “breakthrough therapies.” A product may be designated as a breakthrough therapy if it is intended, either alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The FDA may take certain actions with respect to breakthrough therapies, including holding meetings with the sponsor throughout the development process; providing timely advice to the product sponsor regarding development and approval; involving more senior staff in the review process; assigning a cross-disciplinary project lead for the review team; and taking other steps to design the clinical trials in an efficient manner.

Third, the FDA may designate a product for priority review if it is a drug that treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness. The FDA determines, on a case-by-case basis, whether the proposed drug represents a significant improvement when compared with other available therapies. Significant improvement may be illustrated by evidence of increased effectiveness in the treatment of a condition, elimination or substantial reduction of a treatment-limiting drug reaction, documented enhancement of patient compliance that may lead to improvement in serious outcomes, and evidence of safety and effectiveness in a new subpopulation. A priority designation is intended to direct overall attention and resources to the evaluation of such applications, and to shorten the FDA’s goal for taking action on a marketing application from ten months to six months after the application is accepted for filing.

### *Accelerated Approval Pathway*

The FDA may grant accelerated approval to a drug for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the drug has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. The FDA may also grant accelerated approval for such a condition when the product has an effect on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality, or IMM, and that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. Drugs granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. An intermediate clinical endpoint is a measurement of a therapeutic effect that is considered reasonably likely to predict the clinical benefit of a drug, such as an effect on IMM. The FDA has limited experience with accelerated approvals based on intermediate clinical endpoints, but has indicated that such endpoints generally may support accelerated approval where the therapeutic effect measured by the endpoint is not itself a clinical benefit and basis for traditional approval, if there is a basis for concluding that the therapeutic effect is reasonably likely to predict the ultimate clinical benefit of a drug.

The accelerated approval pathway is most often used in settings in which the course of a disease is long and an extended period of time is required to measure the intended clinical benefit of a drug, even if the effect on the surrogate or intermediate clinical endpoint occurs rapidly. Thus, accelerated approval has been used extensively in the development and approval of drugs for treatment of a variety of cancers in which the goal of therapy is generally to improve survival or decrease morbidity and the duration of the typical disease course requires lengthy and sometimes large trials to demonstrate a clinical or survival benefit.

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The accelerated approval pathway is usually contingent on a sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the drug's clinical benefit. As a result, a drug candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, would allow the FDA to withdraw the drug from the market on an expedited basis. All promotional materials for drug candidates approved under accelerated regulations are subject to prior review by the FDA.

### *The FDA's Decision on an NDA*

On the basis of the FDA's evaluation of the NDA and accompanying information, including the results of the inspection of the manufacturing facilities, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. If and when those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the NDA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

If the FDA approves a product, it may limit the approved indications for use for the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess the drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, many types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

### *Post-Approval Requirements*

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any marketed products and the establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or

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frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, which regulates the distribution of drugs and drug samples at the federal level, and sets minimum standards for the registration and regulation of drug distributors by the states. Both the PDMA and state laws limit the distribution of prescription pharmaceutical product samples and impose requirements to ensure accountability in distribution.

### *Abbreviated New Drug Applications for Generic Drugs*

In 1984, with passage of the Hatch-Waxman Amendments to the FDCA, Congress authorized the FDA to approve generic drugs that are the same as drugs previously approved by the FDA under the NDA provisions of the statute. To obtain approval of a generic drug, an applicant must submit an abbreviated new drug application, or ANDA, to the agency. In support of such applications, a generic manufacturer may rely on the preclinical and clinical testing previously conducted for a drug product previously approved under an NDA, known as the reference listed drug, or RLD.

Specifically, in order for an ANDA to be approved, the FDA must find that the generic version is identical to the RLD with respect to the active ingredients, the route of administration, the dosage form, and the strength of the drug. At the same time, the FDA must also determine that the generic drug is “bioequivalent” to the innovator drug. Under the statute, a generic drug is bioequivalent to a RLD if “the rate and extent of absorption of the drug do not show a significant difference from the rate and extent of absorption of the listed drug[.]”

Upon approval of an ANDA, the FDA indicates whether the generic product is “therapeutically equivalent” to the RLD in its publication “Approved Drug Products with Therapeutic Equivalence Evaluations,” also referred to as the “Orange Book.” Physicians and pharmacists consider a therapeutic equivalent generic drug to be fully substitutable for the RLD. In addition, by operation of certain state laws and numerous health insurance programs, the FDA’s designation of therapeutic equivalence often results in substitution of the generic drug without the knowledge or consent of either the prescribing physician or patient.

Under the Hatch-Waxman Amendments, the FDA may not approve an ANDA until any applicable period of non-patent exclusivity for the RLD has expired. The FDCA provides a period of five years of non-patent data exclusivity for a new drug containing a new chemical entity. In cases where such exclusivity has been granted, an ANDA may not be filed with the FDA until the expiration of five years unless the submission is accompanied by

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a Paragraph IV certification, as discussed below, in which case the applicant may submit its application four years following the original product approval. The FDCA also provides for a period of three years of exclusivity if the NDA includes reports of one or more new clinical investigations, other than bioavailability or bioequivalence studies, that were conducted by or for the applicant and are essential to the approval of the application. This three-year exclusivity period often protects changes to a previously approved drug product, such as a new dosage form, route of administration, combination or indication.

### *Hatch-Waxman Patent Certification and the 30 Month Stay*

Upon approval of an NDA or a supplement thereto, NDA sponsors are required to list with the FDA each patent with claims that cover the applicant's product or an approved method of using the product. Each of the patents listed by the NDA sponsor is published in the Orange Book. When an ANDA applicant files its application with the FDA, the applicant is required to certify to the FDA concerning any patents listed for the reference product in the Orange Book, except for patents covering methods of use for which the ANDA applicant is not seeking approval. To the extent that the Section 505(b)(2) applicant is relying on studies conducted for an already approved product, the applicant is required to certify to the FDA concerning any patents listed for the approved product in the Orange Book to the same extent that an ANDA applicant would.

Specifically, the applicant must certify with respect to each patent that:

- the required patent information has not been filed;
- the listed patent has expired;
- the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or
- the listed patent is invalid, unenforceable or will not be infringed by the new product.

A certification that the new product will not infringe the already approved product's listed patents or that such patents are invalid or unenforceable is called a Paragraph IV certification. If the applicant does not challenge the listed patents or indicates that it is not seeking approval of a patented method of use, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired (other than method of use patents involving indications for which the ANDA applicant is not seeking approval).

If the ANDA applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the ANDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days after the receipt of a Paragraph IV certification automatically prevents the FDA from approving the ANDA until the earlier of 30 months after the receipt of the Paragraph IV notice, expiration of the patent, or a decision in the infringement case that is favorable to the ANDA applicant.

### *Pediatric Studies and Exclusivity*

Under the Pediatric Research Equity Act of 2003, a NDA or supplement thereto must contain data that are adequate to assess the safety and effectiveness of the drug product for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. With enactment of the Food and Drug Administration Safety and Innovation Act, or FDASIA, in 2012, sponsors must also submit pediatric study plans prior to the assessment data. Those plans must contain an outline of the proposed pediatric study or studies the applicant plans to conduct, including study objectives and design, any deferral or waiver requests, and other information required by regulation. The applicant, the FDA, and the FDA's internal review committee must then review the information submitted, consult with each other, and agree upon a final plan. The FDA or the applicant may request an amendment to the plan at any time.

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The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Additional requirements and procedures relating to deferral requests and requests for extension of deferrals are contained in FDASIA. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation.

Pediatric exclusivity is another type of non-patent marketing exclusivity in the United States and, if granted, provides for the attachment of an additional six months of marketing protection to the term of any existing regulatory exclusivity, including the non-patent and orphan exclusivity, which is discussed below. This six-month exclusivity may be granted if an NDA sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be effective in the pediatric population studied; rather, if the clinical trial is deemed to fairly respond to the FDA's request, the additional protection is granted. If reports of requested pediatric studies are submitted to and accepted by the FDA within the statutory time limits, whatever statutory or regulatory periods of exclusivity or patent protection cover the product are extended by six months. This is not a patent term extension, but it effectively extends the regulatory period during which the FDA cannot approve another application.

### *Orphan Designation and Exclusivity*

Under the Orphan Drug Act, the FDA may designate a drug product as an "orphan drug" if it is intended to treat a rare disease or condition (generally meaning that it affects fewer than 200,000 individuals in the United States). A company must request orphan product designation before submitting a NDA. If the request is granted, the FDA will disclose the identity of the therapeutic agent and its potential use. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product with orphan status receives the first FDA approval for the disease or condition for which it has such designation, the product generally will receive orphan product exclusivity. Orphan product exclusivity means that the FDA may not approve any other applications for the same product for the same indication for seven years, except in certain limited circumstances. Competitors may receive approval of different products for the indication for which the orphan product has exclusivity and may obtain approval for the same product but for a different indication. If a drug or drug product designated as an orphan product ultimately receives marketing approval for an indication broader than what was designated in its orphan product application, it may not be entitled to exclusivity.

### *Patent Term Restoration and Extension*

A patent claiming a new drug product may be eligible for a limited patent term extension under the Hatch-Waxman Act, which permits a patent restoration of up to five years for patent term lost during product development and the FDA regulatory review. The restoration period granted is typically one-half the time between the effective date of an IND and the submission date of a NDA, plus the time between the submission date of a NDA and the ultimate approval date. Patent term restoration cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date. Only one patent applicable to an approved drug product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent in question. A patent that covers multiple drugs for which approval is sought can only be extended in connection with one of the approvals. The USPTO reviews and approves the application for any patent term extension or restoration in consultation with the FDA.

### *Review and Approval of Drug Products in the European Union*

In order to market any product outside of the United States, a company must also comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality, safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of

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drug products. Whether or not it obtains FDA approval for a product, the company would need to obtain the necessary approvals by the comparable foreign regulatory authorities before it can commence clinical trials or marketing of the product in those countries or jurisdictions. The approval process ultimately varies between countries and jurisdictions and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries and jurisdictions might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country or jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country or jurisdiction may negatively impact the regulatory process in others.

Pursuant to the European Clinical Trials Directive, a system for the approval of clinical trials in the European Union has been implemented through national legislation of the member states. Under this system, an applicant must obtain approval from the competent national authority of a European Union member state in which the clinical trial is to be conducted. Furthermore, the applicant may only start a clinical trial after a competent ethics committee has issued a favorable opinion. Clinical trial application must be accompanied by an investigational medicinal product dossier with supporting information prescribed by the European Clinical Trials Directive and corresponding national laws of the member states and further detailed in applicable guidance documents.

To obtain marketing approval of a drug under European Union regulatory systems, an applicant must submit a marketing authorization application, or MAA, either under a centralized or decentralized procedure.

The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid for all European Union member states. The centralized procedure is compulsory for specific products, including for medicines produced by certain biotechnological processes, products designated as orphan medicinal products, advanced therapy products and products with a new active substance indicated for the treatment of certain diseases. For products with a new active substance indicated for the treatment of other diseases and products that are highly innovative or for which a centralized process is in the interest of patients, the centralized procedure may be optional.

Under the centralized procedure, the Committee for Medicinal Products for Human Use, or the CHMP, established at the European Medicines Agency, or EMA, is responsible for conducting the initial assessment of a drug. The CHMP is also responsible for several post-authorization and maintenance activities, such as the assessment of modifications or extensions to an existing marketing authorization. Under the centralized procedure in the European Union, the maximum timeframe for the evaluation of an MAA is 210 days, excluding clock stops, when additional information or written or oral explanation is to be provided by the applicant in response to questions of the CHMP. Accelerated evaluation might be granted by the CHMP in exceptional cases, when a medicinal product is of major interest from the point of view of public health and in particular from the viewpoint of therapeutic innovation. In this circumstance, the EMA ensures that the opinion of the CHMP is given within 150 days.

The decentralized procedure is available to applicants who wish to market a product in various European Union member states where such product has not received marketing approval in any European Union member states before. The decentralized procedure provides for approval by one or more other, or concerned, member states of an assessment of an application performed by one member state designated by the applicant, known as the reference member state. Under this procedure, an applicant submits an application based on identical dossiers and related materials, including a draft summary of product characteristics, and draft labeling and package leaflet, to the reference member state and concerned member states. The reference member state prepares a draft assessment report and drafts of the related materials within 210 days after receipt of a valid application. Within 90 days of receiving the reference member state's assessment report and related materials, each concerned member state must decide whether to approve the assessment report and related materials.

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If a member state cannot approve the assessment report and related materials on the grounds of potential serious risk to public health, the disputed points are subject to a dispute resolution mechanism and may eventually be referred to the European Commission, whose decision is binding on all member states.

### *Data and Market Exclusivity in the European Union*

In the European Union, new chemical entities qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity. This data exclusivity, if granted, prevents regulatory authorities in the European Union from referencing the innovator's data to assess a generic (abbreviated) application for eight years, after which generic marketing authorization can be submitted, and the innovator's data may be referenced, but not approved for two years. The overall ten-year period will be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new chemical entity and the sponsor is able to gain the prescribed period of data exclusivity, another company nevertheless could also market another version of the drug if such company can complete a full MAA with a complete database of pharmaceutical test, preclinical tests and clinical trials and obtain marketing approval of its product.

### *Pharmaceutical Coverage, Pricing and Reimbursement*

Significant uncertainty exists as to the coverage and reimbursement status of products approved by the FDA and other government authorities. Sales of products will depend, in part, on the extent to which the costs of the products will be covered by third-party payors, including government health programs in the United States such as Medicare and Medicaid, commercial health insurers and managed care organizations. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors may limit coverage to specific products on an approved list, or formulary, which might not include all of the approved products for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable regulatory approvals. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Third-party reimbursement may not be sufficient to maintain price levels high enough to realize an appropriate return on investment in product development.

In the European Union, pricing and reimbursement schemes vary widely from country to country. Some countries provide that drug products may be marketed only after a reimbursement price has been agreed. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular drug candidate to currently available therapies. For example, the European Union provides options for its member states to restrict the range of drug products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. European Union member states may approve a specific price for a drug product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the drug product on the market. Other member states allow companies to fix their own prices for drug products, but monitor and control company profits. The downward pressure on health care costs in general, particularly prescription drugs, has become intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert competitive pressure that may reduce pricing within a country. Any country that has price controls or reimbursement limitations for drug products may not allow favorable reimbursement and pricing arrangements.

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### *Healthcare Law and Regulation*

Healthcare providers, physicians and third-party payors play a primary role in the recommendation and prescription of drug products that are granted marketing approval. Arrangements with third-party payors and customers are subject to broadly applicable fraud and abuse and other healthcare laws and regulations. Such restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the federal healthcare Anti-Kickback Statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid;
- the federal False Claims Act imposes civil penalties, and provides for civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;
- the federal transparency requirements under the Health Care Reform Law will require manufacturers of drugs, devices, drugs and medical supplies to report to the Department of Health and Human Services information related to payments and other transfers of value to physicians and teaching hospitals and physician ownership and investment interests; and
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers.

Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

### **Employees**

As of January 31, 2014, we had 22 full-time employees, including a total of 11 employees with M.D. or Ph.D. degrees. Of our workforce, 15 employees are engaged in research and development. None of our employees is represented by labor unions or covered by collective bargaining agreements.



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**Facilities**

Our principal facilities consist of approximately 14,200 square feet of research and office space located on the 5<sup>th</sup> Floor of 840 Memorial Drive, Cambridge, Massachusetts. The lease expires in February 2016, subject to our option to extend the lease for an additional two years.

**Legal Proceedings**

We are not currently a party to any material legal proceedings.

## MANAGEMENT

### Executive Officers and Directors

The following table sets forth the name, age and position of each of our executive officers and directors as of March 1, 2014.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Oliver S. Fetzer, Ph.D.	49	President, Chief Executive Officer and Director
Edward G. Garmey, M.D.	46	Senior Vice President and Chief Medical Officer
Christopher D. T. Guiffre, J.D.	45	Senior Vice President and Chief Business Officer
Karen L. Roberts	57	Senior Vice President, Finance and Administration
Alan L. Crane(3)	50	Chairman of the Board
Paul A. Friedman, M.D.(2)(3)	71	Director
Steven E. Hall, Ph.D.(1)(2)	59	Director
William T. McKee(1)	52	Director
William H. Rastetter, Ph.D.(1)(3)	65	Director
Ram Sasisekharan, Ph.D.	49	Director
Robert I. Tepper, M.D.(2)	58	Director

(1) *Member of audit committee.*

(2) *Member of compensation committee.*

(3) *Member of nominating and corporate governance committee.*

*Oliver S. Fetzer, Ph.D.* has served as our President and Chief Executive Officer and as a member of our board of directors since 2009. From 2004 until 2007, Dr. Fetzer served as Senior Vice President, Corporate Development and Research & Development at Cubist Pharmaceuticals, Inc., or Cubist. From 2003 to 2004, he served as Cubist's Senior Vice President, Corporate Development and Chief Business Officer and, from 2002 until 2003, he served as its Senior Vice President, Business Development. Before his time at Cubist, commencing in 1993, Dr. Fetzer held various positions of increasing responsibility at the Boston Consulting Group, or BCG, a global leading management consulting firm, including Consultant, Project Leader, Principal and Partner and Managing Director. Since 2005, Dr. Fetzer has served on the board of directors of Auxilium Pharmaceuticals, Inc., a public specialty biopharmaceutical company, and since 2011 on the board of directors of Tecan Group AG, a public provider of laboratory instruments and solutions in biopharmaceuticals, forensics and clinical diagnostics. He received a B.S. in Biochemistry from the College of Charleston, his Ph.D. in Pharmaceutical Sciences from the Medical University of South Carolina and an M.B.A. from Carnegie Mellon University. We believe that Dr. Fetzer is qualified to serve on our board of directors because of his years of service as our Chief Executive Officer and his extensive knowledge of our company and industry.

*Edward G. Garmey, M.D.* has served as our Senior Vice President and Chief Medical Officer since 2011. Prior to joining Cerulean, Dr. Garmey held a variety of positions at ArQule, Inc., a clinical-stage biotechnology company, including as Vice President for Clinical Development since 2008, and as Clinical Development Liaison from 2007 to 2008. From 2006 to 2007, Dr. Garmey served as Medical Director at GPC Biotech, a German biopharmaceutical company and now a subsidiary of Agennix AG, where he helped oversee global clinical development studies. Dr. Garmey received his A.B. from Harvard University and his M.D. from New York University. He is a member of the Scientific Advisory Board for the Harvard-MIT Broad Institute's Cancer Vaccine Initiative.

*Christopher D. T. Guiffre, J.D.* has served as our Senior Vice President and Chief Business Officer since 2012. Prior to that, Mr. Guiffre held a number of senior executive positions at various biopharmaceutical companies. From 2010 to 2012, he served as President and Chief Executive Officer of Alvos Therapeutics, Inc., a private biotechnology company subsequently acquired by Arrowhead Research Corp.; from 2008 to 2009, he served as Chief Business Officer at Hydra Biosciences, Inc., a private biopharmaceutical company; and from

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2001 to 2008, he served as a senior executive at Cubist Pharmaceuticals, Inc., most recently as Senior Vice President, General Counsel and Secretary. From 1997 to 2001, Mr. Guiffre held several positions at Renaissance Worldwide, Inc., including Vice President, General Counsel and Clerk. Prior to that, he was an Associate at Bingham McCutchen LLP. He received a B.S. degree from Babson College, a J.D. from Boston College Law School and an M.B.A. from Boston College Carroll School of Management.

*Karen L. Roberts* has served as our Senior Vice President, Finance and Administration since 2010. Prior to joining Cerulean, from 2001 to 2009, Ms. Roberts served as Vice President, Finance and Administration of Elixir Pharmaceuticals, Inc., a biopharmaceutical company where she was the senior financial executive responsible for all aspects of finance, accounting and administration. From 1998 to 2001, Ms. Roberts served in a number of roles, including Corporate Controller and Chief Accounting Officer and Vice President, Finance, at Frontline Group, Inc., a provider of business performance improvement services and products. Prior to that, Ms. Roberts served as Director of Finance at Dyax Corp., a biotechnology company, and as Corporate Controller and Director Financial Administration at T Cell Sciences, Inc., a biopharmaceutical company. Ms. Roberts received her B.S. in Business Administration with a concentration in accounting from Salem State College.

*Alan L. Crane* is one of our co-founders and has served as a member of our board of directors since 2006 and our chairman since 2009. From our founding until 2009, Mr. Crane served as our Chief Executive Officer. Currently, he is a general partner at Polaris Partners and was a Venture Partner at Polaris from 2002 until 2009. From 2002 until 2006, Mr. Crane was President and Chief Executive Officer of Momenta Pharmaceuticals, Inc. Prior to this, he was Senior Vice President of Global Corporate Development at Millennium Pharmaceuticals, Inc., where he was responsible for leading Millennium's strategic partnering, mergers and acquisitions, and licensing activities. Mr. Crane serves on the boards of privately held life sciences companies Visterra, Inc., T2 Biosystems, Inc., Ocular Therapeutix, Inc., Seventh Sense Biosystems, Inc., Caloric Pharmaceuticals, Inc., XTuit Pharmaceuticals, Inc. and Vaccinex, Inc. Previously, he served on the boards of Sirtris Pharmaceuticals, Inc. (acquired by Glaxo SmithKline), Adnexus Therapeutics, Inc. (acquired by Bristol Myers Squibb), and Hydra Biosciences. Mr. Crane received his B.A., M.A. and M.B.A. from Harvard University. We believe that Mr. Crane is qualified to serve on our board of directors due to his role in our founding, his institutional knowledge as a result of his continuous service on our board since 2006, and his significant experience as an investor in, and executive and director of, life sciences companies.

*Paul A. Friedman, M.D.* has served as a director since January 2014. From 2001 to January 2014, he was Chief Executive Officer of Incyte Corporation, a public biotechnology company, and he served as President of Incyte from 2004 to January 2014. From 1998 until 2001, Dr. Friedman was President of DuPont Pharmaceuticals Research Laboratories, a wholly owned subsidiary of DuPont Pharmaceuticals Company (formerly The DuPont Merck Pharmaceutical Company), from 1994 to 1998 he served as President of Research and Development of The DuPont Merck Pharmaceutical Company, and from 1991 to 1994 he served as Senior Vice President at Merck Research Laboratories. Prior to his work at Merck and DuPont, Dr. Friedman was an Associate Professor of Medicine and Pharmacology at Harvard Medical School. Dr. Friedman is a Diplomate of the American Board of Internal Medicine and a Member of the American Society of Clinical Investigation. Dr. Friedman is a director of Incyte, public biopharmaceutical companies Auxilium Pharmaceuticals, Inc. and Durata Therapeutics, Inc. and private biopharmaceutical company Gliknik, Inc. Dr. Friedman was a director of Bausch & Lomb Incorporated from 2004 until its acquisition in 2007 and was a director of Sirtris Pharmaceuticals, Inc. from March 2008 until its acquisition in June 2008. Dr. Friedman received his A.B. from Princeton University and his M.D. from Harvard Medical School. We believe that Dr. Friedman is qualified to serve on our board of directors due to his management and research and development experience and his experience serving on the boards of life sciences companies.

*Steven E. Hall, Ph.D.* has served as a member of our board of directors since 2010. Dr. Hall has served as a venture partner at Lilly Ventures, the venture capital arm of Eli Lilly and Company, since 2009. Prior to joining Lilly Ventures, from 2003 to 2008, Dr. Hall was Senior Vice President, Research and Development, at Serenex, Inc., a biotechnology company (acquired by Pfizer), where he was also a co-founder. From 1994 to 2003,

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Dr. Hall held multiple positions, including Site Director, Sphinx Labs, Eli Lilly where he oversaw lead generation efforts in the areas of combinatorial chemistry, automation, high-throughput screening, biomolecular research, and information technology. Dr. Hall is the author of more than 40 papers and 60 patents. He received his B.S. in chemistry from Central Michigan University and his Ph.D. in organic chemistry from Massachusetts Institute of Technology. Dr. Hall currently sits on the boards of privately held life sciences companies FORMA Therapeutics, Inc., Esanex, Inc., Nimbus Discovery, LLC and Hydra Biosciences, Inc., and on the board of crowdsourcing service provider InnoCentive, Inc. We believe that Dr. Hall is qualified to serve on our board of directors due to his broad experience in the life sciences industry as a venture capitalist, director and senior executive and his research knowledge.

*William T. McKee* has served as a director since January 2014. Mr. McKee served as Chief Operating Officer and Chief Financial Officer at EKR Therapeutics, Inc., a private specialty pharmaceutical company, from 2010 until 2012 when EKR was sold to Cornerstone Therapeutics Inc., a public pharmaceutical company. Until 2010, Mr. McKee served as the Executive Vice President and Chief Financial Officer of Barr Pharmaceuticals, LLC, a subsidiary of Teva Pharmaceutical Industries Limited, a generic pharmaceutical company, and the successor entity to Barr Pharmaceuticals, Inc., a public specialty pharmaceutical company, which was acquired by Teva in 2008. Mr. McKee was also Executive Vice President and Chief Financial Officer of Barr prior to its acquisition by Teva, after having served in positions of increasing responsibility at Barr from 1995 until its acquisition. Prior to joining Barr, Mr. McKee served as Director of International Operations and Vice President-Finance at Absolute Entertainment, Inc., a private developer and marketer of entertainment software, from 1993 until 1994. From 1990 until 1993, Mr. McKee worked at Gramkow & Carnevale, CPA's, an accounting firm, and from 1983 until 1990, he worked at Deloitte & Touche. Mr. McKee serves on the board of directors of Auxilium Pharmaceuticals, Inc., a public specialty biopharmaceutical company. Mr. McKee received his B.B.A. from the University of Notre Dame. We believe that Mr. McKee is qualified to serve on our board of directors due to his financial and leadership experience as a chief financial officer and a certified public accountant.

*William H. Rastetter, Ph.D.* has served as a director since January 2014. He is a Co-Founder of Receptos, Inc., a biopharmaceutical company, where he has been a director and Chairman of the Board since May 2009 and was Acting Chief Executive Officer from May 2009 to November 2010. Dr. Rastetter served as a Partner at the venture capital firm of Venrock Associates from 2006 to February 2013. Prior to his tenure with Venrock, Dr. Rastetter was Executive Chairman of Biogen Idec, from the merger of the two companies (Biogen and Idec Pharmaceuticals) in 2003 through the end of 2005. He joined Idec Pharmaceuticals in 1986 and served as Chairman and Chief Executive Officer. Prior to Idec, he was Director of Corporate Ventures at Genentech, Inc. and served as well in a scientific capacity at Genentech. Dr. Rastetter also serves as the Chairman of public life sciences companies Illumina, Inc., Neurocrine Biosciences, Inc. and Fate Therapeutics Inc. and as a director of Regulus Therapeutics, Inc., a public biopharmaceutical company. Dr. Rastetter has held various faculty positions at the Massachusetts Institute of Technology and Harvard University and is an Alfred P. Sloan Fellow. Dr. Rastetter holds a B.S. in Chemistry from the Massachusetts Institute of Technology and received his M.A. and Ph.D. in Chemistry from Harvard University. We believe Dr. Rastetter is qualified to serve on our board of directors due to his extensive experience in the biotechnology industry, his broad leadership experience with Idec Pharmaceuticals, Inc. and on several public and private biotechnology company boards, and his experience with financial matters.

*Ram Sasisekharan, Ph.D.* is one of our co-founders and has served as a consultant and as a member of our board of directors since 2006. Dr. Sasisekharan has been a Professor of Biological Engineering at the Massachusetts Institute of Technology since 1996 and is Director of the Harvard-MIT Division of Health Sciences & Technology and Edward Hood Taplin Professor of Biological Engineering & Health Sciences & Technology and also a member of the Koch Institute for Integrative Cancer Research. Dr. Sasisekharan founded Momenta Pharmaceuticals, Inc. and Visterra, Inc., and he serves on the board of directors of Visterra, Inc. Dr. Sasisekharan's research on complex polysaccharides has led to over 125 publications and over 50 patents, including the core technologies of Momenta Pharmaceuticals, Inc. He has won both the Burroughs Wellcome and Beckman Foundation Young Investigator Awards and was the recipient of the 1998, 1999, 2000 and 2001

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CaPCure Awards from the CaPCure Foundation. Dr. Sasisekharan serves on the steering committee of the Consortium for Functional Glycomics. Dr. Sasisekharan received his B.S. in Physical Sciences from Bangalore University, his M.S. in Biophysics from Harvard University and his Ph.D. in Medical Sciences from Harvard Medical School. We believe Dr. Sasisekharan is qualified to serve on our board of directors due to his experience in science and research and his institutional knowledge as a result of his continuous service on our board since 2006.

*Robert I. Tepper, M.D.* has served as a member of our board of directors since 2006. Dr. Tepper has over 25 years of experience building and operating leading research and development operations. Dr. Tepper co-founded Third Rock Ventures, L.P. in March 2007 and focuses on the formation, development and scientific strategy of its portfolio companies, as well as actively identifying and evaluating new investments. Prior to joining Third Rock Ventures, L.P., from 2003 to 2007, Dr. Tepper served as President of Research and Development at Millennium Pharmaceuticals, Inc. Before joining Millennium Pharmaceuticals, Inc. in 1994, he served as principal investigator in the laboratory of tumor biology at Massachusetts General Hospital Cancer Center. Dr. Tepper is also a founder and former member of the scientific advisory board of Cell Genesys/Abgenix. Dr. Tepper holds an A.B. in biochemistry from Princeton University and an M.D. from Harvard Medical School. Dr. Tepper serves as an adjunct faculty member at Harvard Medical School and Massachusetts General Hospital and is an advisory board member of several leading healthcare institutions, including the Partners HealthCare Center for Personalized Genetic Medicine, Harvard Medical School and Tufts Medical School. Dr. Tepper is a board member of private life sciences companies Alcresta, Inc., Allena Pharmaceuticals, Inc., Constellation Pharmaceuticals Inc. and Kala Pharmaceuticals, Inc. as well as public biopharmaceutical company bluebird bio Inc., and is also on the board of overseers at Tufts University. We believe that Dr. Tepper is qualified to serve on our board of directors due to his experience in the venture capital industry, particularly with biotech and pharmaceutical companies, combined with his experience building and operating research and development operations, on the boards of public and private life sciences companies and as faculty and advisory board members of several healthcare institutions.

### **Board Composition and Election of Directors**

Our board of directors currently consists of eight members, three of whom are designated by certain of our preferred stockholders and elected pursuant to a voting agreement that we have entered into with the holders of our preferred stock and certain of our other stockholders. The voting agreement will terminate upon the closing of this offering and there will be no further contractual obligations regarding the election of our directors. Following the closing of this offering, in accordance with the terms of our certificate of incorporation and bylaws that will become effective as of the closing of this offering, our board of directors will be divided into three classes: class I, class II and class III, with members of each class serving staggered three-year terms. Upon the closing of this offering, the members of the classes will be divided as follows:

- the class I directors will be Dr. Sasisekharan and Dr. Tepper, and their term will expire at the annual meeting of stockholders to be held in 2015;
- the class II directors will be Mr. Crane, Dr. Fetzer and Dr. Hall, and their terms will expire at the annual meeting of stockholders to be held in 2016; and
- the class III directors will be Dr. Friedman, Mr. McKee and Dr. Rastetter, and their terms will expire at the annual meeting of stockholders to be held in 2017.

Upon the expiration of the term of a class of directors, directors in that class are eligible to be elected for a new three-year term at the annual meeting of stockholders in the year in which their term expires. In accordance with the terms of our certificate of incorporation and bylaws that will become effective upon the closing of this offering, the authorized number of directors may be changed only by resolution of the board of directors, our directors may be removed only for cause by the affirmative vote of the holders of 75% or more of our voting stock and any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

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Under applicable NASDAQ rules, a director will only qualify as an “independent director” if, in the opinion of our board of directors, such director does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Our board of directors has determined that all of our directors, other than Dr. Fetzer and Mr. Crane, are independent directors, as defined by the applicable NASDAQ rules. In making such determination, the board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances that the board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

There are no family relationships among any of our directors or executive officers.

### **Board Committees**

Our board has established three standing committees—audit, compensation, and nominating and corporate governance—each of which operates under a charter that has been approved by our board of directors. Current copies of each committee’s charter are posted on the Corporate Governance section of our website, [www.ceruleanrx.com](http://www.ceruleanrx.com). The composition of each committee will be effective upon the closing of this offering.

Our board has determined that all of the members of our audit committee, the compensation committee and the nominating and corporate governance committee satisfy the independence standards for such committees established by the SEC and the NASDAQ listing rules, as applicable. In making such determinations, our board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances that our board of directors deemed relevant in determining independence, including the beneficial ownership of our capital stock by each non-employee director.

#### *Audit committee*

The members of our audit committee are Drs. Hall and Rastetter and Mr. McKee. Mr. McKee chairs the audit committee. Upon the closing of this offering, the audit committee’s responsibilities will include:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing our internal audit function;
- discussing our risk management policies;
- establishing policies regarding hiring employees from the registered public accounting firm and procedures for the receipt, retention and treatment of accounting related complaints and concerns;
- meeting independently with our internal auditing staff, registered public accounting firm and management;
- reviewing and approving or ratifying our policies and procedures for related person transactions and review and approve or ratify all related person transactions; and
- preparing the audit committee report required by SEC rules to be included in our proxy statement for our annual meeting of stockholders.

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All audit and non-audit services, other than *de minimis* non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee.

Our board of directors has determined that Mr. McKee is an “audit committee financial expert” as defined by applicable SEC rules.

### ***Compensation committee***

The members of our compensation committee are Drs. Tepper, Hall and Friedman. Dr. Tepper chairs the compensation committee. Upon the closing of this offering, the compensation committee’s responsibilities will include:

- reviewing and approving, or making recommendations to our board with respect to, the compensation of our executive officers;
- overseeing an evaluation of our senior executives;
- overseeing and administering our cash and equity incentive plans;
- reviewing and making recommendations to our board with respect to director compensation;
- reviewing and discussing annually with management our “Compensation Discussion and Analysis”; and
- preparing the annual compensation committee report required by SEC rules.

### ***Nominating and corporate governance committee***

The members of our nominating and corporate governance committee are Drs. Rastetter and Friedman and Mr. Crane. Dr. Rastetter chairs the nominating and corporate governance committee. Upon the closing of this offering, the nominating and corporate governance committee’s responsibilities will include:

- recommending to our board the persons to be nominated for election as directors and to each of the board’s committees;
- reviewing and making recommendations to the board with respect to management succession planning;
- developing and recommending to the board corporate governance guidelines; and
- overseeing an annual evaluation of the board.

### **Compensation Committee Interlocks and Insider Participation**

None of our executive officers serves as a member of the board of directors or compensation committee or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our board of directors or our compensation committee. None of the members of our compensation committee is, or has ever been, an officer or employee of our company.

### **Code of Ethics and Code of Conduct**

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. We have posted a current copy of the code on our website, [www.ceruleanrx.com](http://www.ceruleanrx.com). If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

**EXECUTIVE COMPENSATION**

This section describes the material elements of our executive compensation for our “named executive officers” and the most important factors relevant to an analysis of these policies. It provides qualitative information regarding the manner and context in which compensation is awarded to and earned by our executive officers named in the “Summary Compensation Table” below, or our “named executive officers,” and is intended to place in perspective the data presented in the following tables and the corresponding narrative. Our “named executive officers” for 2013 are Oliver S. Fetzer, our President and Chief Executive Officer, Christopher D.T. Guiffre, our Senior Vice President and Chief Business Officer, and Edward Garmey, our Senior Vice President and Chief Medical Officer.

In preparing to become a public company, we have begun a thorough review of all elements of our executive compensation program, including the function and design of our equity incentive programs. We have begun, and expect to continue in the coming months, to evaluate the need for revisions to our executive compensation program to ensure that our program is competitive with the companies with which we compete for executive talent and is appropriate for a public company.

**Summary Compensation Table**

The following table sets forth information regarding compensation awarded to, earned by or paid to our named executive officers during our fiscal year ended December 31, 2013.

<b>Name and Principal Position</b>	<b>Salary (\$)</b>	<b>Bonus \$(1)</b>	<b>Option Awards \$(2)</b>	<b>All Other Compensation (\$)</b>	<b>Total (\$)</b>
Oliver S. Fetzer, Ph.D. <i>President and Chief Executive Officer</i>	352,000	176,000	146,088	10,968(3)	685,056
Christopher D.T. Guiffre, J.D. <i>Senior Vice President and Chief Business Officer</i>	295,000	73,750	—	10,968(3)	379,718
Edward Garmey, M.D. <i>Senior Vice President and Chief Medical Officer</i>	303,000	75,750	—	10,968(3)	389,718

- (1) The amounts reported in the “Bonus” column reflect, for each named executive officer, the amount of bonus compensation that was earned in 2013, which will be paid in March 2014.
- (2) The amounts reported in the “Option Awards” column reflect the aggregate fair value computed as of the grant date of the options awarded during the year computed in accordance with the provisions of Financial Accounting Standards Board, or FASB, Accounting Standard Codification, or ASC, Topic 718. See note 10 to our consolidated financial statements appearing at the end of this prospectus for assumptions underlying the valuation of equity awards.
- (3) Consists of \$10,200 that we matched pursuant to our 401(k) plan and \$768 in life insurance premiums.

**Narrative to summary compensation table**

**Base salary.** In 2013, we paid base salaries of \$352,000 to Dr. Fetzer, \$295,000 to Mr. Guiffre and \$303,000 to Dr. Garmey. We use base salaries to recognize the experience, skills, knowledge and responsibilities required of all of our employees, including our named executive officers. None of our named executive officers are party to an employment agreement, or other agreement or arrangement, that provides for automatic or scheduled increases in base salary. In December 2013, our compensation committee approved 2014 base salaries of \$310,000 for Mr. Guiffre and \$309,000 for Dr. Garmey. In January 2014, our board of directors, upon the recommendation of our compensation committee, approved a 2014 base salary of \$366,080 for Dr. Fetzer.



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*Annual bonus.* Our board of directors may, in its discretion, award bonuses to our named executive officers from time to time. We typically establish annual bonus targets based on a set of specified corporate goals for our named executive officers and conduct an annual performance review to determine the attainment of such goals. Our management may propose bonus awards to the compensation committee of the board or the board primarily based on such review process. Our compensation committee makes the final determination of the eligibility requirements for and the amount of the bonus awards paid to our executive officers other than our Chief Executive Officer, and our board of directors makes the final determination of the eligibility requirements for and the amount of the bonus awards paid to our Chief Executive Officer. With respect to 2013, we awarded bonuses, payable in March 2014, of \$176,000 to Dr. Fetzer, \$73,750 to Mr. Guiffre and \$75,750 to Dr. Garmey, in each case based on our achievement of company goals, with such amount representing 100% of each such officer's bonus target.

*Equity incentives.* Although we do not have a formal policy with respect to the grant of equity incentive awards to our executive officers, or any formal equity ownership guidelines applicable to them, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our executives and our stockholders. In addition, we believe that equity grants with a time-based vesting feature promote executive retention because this feature incentivizes our executive officers to remain in our employment during the vesting period. Accordingly, our compensation committee and board of directors periodically review the equity incentive compensation of our named executive officers and from time to time may grant equity incentive awards to them in the form of stock options. Prior to this offering, our executives were eligible to participate in the 2007 stock incentive plan, as amended, or the 2007 Plan. During 2013, all stock options were granted pursuant to the 2007 Plan. Following the closing of this offering, our employees and executives will be eligible to receive stock options and other stock-based awards pursuant to the 2014 stock incentive plan, or the 2014 Plan.

We use stock options to compensate our executive officers in the form of initial grants in connection with the commencement of employment and also at various times, often but not necessarily annually, if we have performed as expected or better than expected. Prior to this offering, the award of stock options to our executive officers, other than our Chief Executive Officer, has been made by our board or compensation committee, and the award of stock options to our Chief Executive Officer has been made by our board. None of our executive officers is currently party to an employment agreement that provides for automatic award of stock options. We have granted stock options to our executive officers with both time-based and performance-based vesting. The options that we have granted to our executive officers with time-based vesting typically become exercisable as to 25% of the shares underlying the option on the first anniversary of the grant date, and as to an additional 1/48th of the shares underlying the option monthly thereafter. Going forward, we expect annual and other grants made to existing executive officers and employees will vest monthly as to 1/48th of the shares underlying the option. The options that we have granted to date to our executive officers with performance-based vesting become exercisable upon the occurrence of specified business transactions or other specified milestones. Vesting and exercise rights cease shortly after termination of employment except in the case of death or disability and, in the case of Dr. Fetzer, in certain circumstances upon a change in control. Prior to the exercise of an option, the holder has no rights as a stockholder with respect to the shares subject to such option, including no voting rights and no right to receive dividends or dividend equivalents.

We have historically granted stock options with exercise prices that are equal to the fair market value of our common stock on the date of grant as determined by our board of directors, based on a number of objective and subjective factors. The exercise price of all stock options granted after the closing of this offering will be equal to the fair market value of shares of our common stock on the date of grant, which will be determined by reference to the closing market price of our common stock on the date of grant.

In January 2014, our board of directors granted an option to purchase 400,000 shares to Dr. Fetzer, an option to purchase 260,000 shares to Mr. Guiffre and an option to purchase 200,000 shares to Dr. Garmey. These options have an exercise price of \$0.73 per share and vest monthly as to 1/48th of the shares underlying the option over four years following the grant date.

**2013 Outstanding Option Awards at Fiscal-Year End**

The following table sets forth information concerning outstanding option awards for each of our named executive officers at December 31, 2013:

Name	Option Awards		Option Exercise Price (\$)	Option Expiration Date
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable		
Oliver S. Fetzer, Ph.D.	1,392,438	—	0.41	4/7/2019
	250,000	—	0.23	12/3/2019
	120,595	—	0.23	2/2/2020
	1,438,572	479,525(1)	0.23	1/27/2021
	335,000	335,000(2)	0.26	1/24/2022
	121,618	1,178,035(3)	0.27	12/26/2022
	0	775,977(4)	0.27	2/6/2023
Christopher D.T. Guiffre, J.D.	373,750	406,250(5)	0.26	1/24/2022
	0	750,000(6)	0.26	1/24/2022
	33,497	100,491(7)	0.27	12/18/2022
	0	133,988(8)	0.27	12/18/2022
Edward Garmey, M.D.	322,916	177,084(9)	0.23	6/8/2021
	140,000	140,000(10)	0.26	1/24/2022
	45,800	137,402(11)	0.27	12/18/2022

- (1) The unvested shares underlying this option are scheduled to vest in approximately equal monthly installments through December 31, 2014.
- (2) The unvested shares underlying this option are scheduled to vest in approximately equal monthly installments through December 31, 2015.
- (3) This option vests as follows: (i) 486,475 of the underlying shares shall vest as to 25% of such shares on December 31, 2013, with the remaining shares scheduled to vest in approximately equal monthly installments through December 31, 2016; (ii) an additional 248,932 of the shares shall vest either upon the occurrence of a change in control event meeting certain objective criteria or our stock reaching a specified average price per share; (iii) an additional 248,932 of the shares shall vest either upon the occurrence of a change in control event meeting certain objective criteria or our stock reaching a specified average price per share and (iv) an additional 315,314 of the shares shall vest either upon the occurrence of a change in control event meeting certain objective criteria or our stock reaching a specified average price per share.
- (4) This option vests as follows: (i) 237,543 of the shares shall vest either upon the occurrence of a change in control event meeting certain objective criteria or our stock reaching a specified average price per share; (ii) an additional 237,543 of the shares shall vest either upon the occurrence of a change in control event meeting certain objective criteria or our stock reaching a specified average price per share and (iii) an additional 300,891 of the shares shall vest either upon the occurrence of a change in control event meeting certain objective criteria or our stock reaching a specified average price per share.
- (5) The unvested shares underlying this option are scheduled to vest in approximately equal monthly installments through January 17, 2016.
- (6) This option vests as follows: (i) 400,000 of the underlying shares shall vest in 24 approximately equal monthly installments, commencing upon the closing of a transformative business development transaction, as determined by our board of directors and (ii) the remaining 350,000 shares shall vest upon the occurrence of a change in control event meeting certain objective criteria.
- (7) The unvested shares underlying this option are scheduled to vest in approximately equal monthly installments through December 31, 2016.

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- (8) This option vests as follows: (i) 72,354 of the underlying shares shall vest in 24 approximately equal monthly installments, commencing upon the closing of a transformative business development transaction, as determined by our board of directors and (ii) the remaining 61,634 shares shall vest upon the occurrence of a change in control event meeting certain objective criteria, provided that if the closing of such change of control event occurs on or prior to January 1, 2015 then, upon such closing, all of the shares underlying this option shall vest in full.
- (9) The unvested shares underlying this option are scheduled to vest in approximately equal monthly installments through May 2, 2015.
- (10) The unvested shares underlying this option are scheduled to vest in approximately equal monthly installments through December 31, 2015.
- (11) The unvested shares underlying this option are scheduled to vest in approximately equal monthly installments through December 31, 2016.

## **Employment Agreements**

### ***Agreements with Dr. Fetzer***

In April 2009, we entered into an employment agreement with Dr. Fetzer in connection with the commencement of his employment with us. This agreement provides that Dr. Fetzer is employed at will, and either we or Dr. Fetzer may terminate the employment relationship for any reason, at any time, with or without notice.

Pursuant to the agreement, Dr. Fetzer is eligible to receive a performance-based annual cash bonus, which is based upon quantitative and qualitative performance objectives that will be mutually agreed between our board of directors and Dr. Fetzer, and which will be determined by our board of directors in its sole discretion. Dr. Fetzer's target annual bonus is 50% of his base salary for the applicable fiscal year.

If we terminate Dr. Fetzer's employment without cause or if Dr. Fetzer terminates his employment with us for good reason, each as defined in the employment agreement, other than in connection with a change in control, as defined in the employment agreement, upon execution and effectiveness of a release of claims, we are obligated to pay Dr. Fetzer a lump sum amount equal to his then-current base salary for nine months plus an amount equal to three-fourths of the amount of the last bonus paid by us to Dr. Fetzer and, to the extent allowed by applicable law and the applicable plan documents, to continue to provide Dr. Fetzer and certain of his dependents with group health insurance for a period of nine months.

If we terminate Dr. Fetzer's employment without cause or if Dr. Fetzer terminates his employment with us for good reason, in each case within 12 months following a change of control, upon execution and effectiveness of a release of claims, we are obligated to pay Dr. Fetzer a lump sum amount equal to his base salary for twelve months plus an amount equal to the amount of the last bonus paid by us to Dr. Fetzer, to continue to provide Dr. Fetzer and certain of his dependents with group health insurance for a period of 12 months and to accelerate in full the vesting of Dr. Fetzer's outstanding equity awards that are subject to time-based vesting.

In addition, with respect to the options to purchase 1,589,155 shares of our common stock subject to performance-based vesting that were granted to Dr. Fetzer in December 2012 and February 2013, he will be entitled to certain cash payments following a change in control to the extent such options are not fully vested at the time of the change in control and future cash consideration is paid in connection with the transaction, which payments would have resulted in more shares vesting pursuant to the option agreement if they had they been paid at the time of the closing of the change in control.

### ***Offer Letters with Dr. Garmey and Mr. Guiffre***

In April 2011 and January 2012, we entered into employment offer letters with Dr. Garmey and Mr. Guiffre, respectively, pursuant to which they are employed at will, and either we or they may terminate the respective

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employment relationship at any time for any reason. The offer letters establish each of Dr. Garmey's and Mr. Guiffre's title, initial compensation arrangement, eligibility for benefits made available to employees generally and, subject to certain criteria determined by our compensation committee, eligibility for a discretionary performance-based bonus with a target of 25% of their respective annual base salary.

### **Change in Control Severance Plan**

We have established a Change in Control Severance Plan, or the Severance Plan, which sets forth the conditions under which certain of our employees with a job title of vice president or above will receive severance benefits if we terminate their employment under specified circumstances, as described below. We believe that change in control benefits are important for attracting and retaining senior level talent and help to ensure that our senior level employees can remain focused during periods of uncertainty.

The Severance Plan covers our employees with a job title of vice president or above, other than those employees (i) who are party to an employment, retention or other agreement with us that provides for severance benefits, (ii) whose employment is terminated for cause, as defined in the Severance Plan, (iii) who retire, terminate their employment as a result of an inability to perform their duties due to physical or mental disability or die, (iv) who voluntarily terminate their employment, other than for good reason, as defined in the Severance Plan, (v) who are employed for a specified period of time in accordance with the terms of a written employment agreement or (vi) who accept employment with an acquirer of any of our businesses, operations or assets or who refuse an offer of such employment in a position providing comparable responsibilities or compensation. We sometimes refer to the employees who are covered by the Severance Plan as the covered employees.

Under the Severance Plan, if, within the one-year period following a change in control, as defined in the Severance Plan, we terminate the employment of a covered employee without cause, as defined in the Severance Plan, or the employee resigns for good reason, as defined in the Severance Plan, such employee is entitled to receive the following cash severance pay and other severance benefits. Under the Severance Plan, covered employees are entitled to receive a lump sum payment equal to six months of the employee's then-current monthly base salary. Covered employees at the level of senior vice president or higher are also entitled to receive one additional month for each year of service, up to a maximum of nine additional months. In addition to the cash severance pay, under the Severance Plan covered employees are entitled to:

- full acceleration of the vesting of unvested equity awards, other than awards with vesting based on performance or the achievement of milestones;
- payment of any bonus amount for the prior year that was approved but not yet paid at the time of termination, such amount to be paid in a manner consistent with payments to other similarly situated employees and consistent with the requirements of Section 409A of the Internal Revenue Code; and
- contributions to the cost of Consolidated Omnibus Budget Reconciliation Act, or COBRA, coverage on behalf of the employee and any applicable dependents, if the employee elects such coverage and for no longer than the period for which such employee is entitled to cash severance pay as described above.

Cash severance pay and other severance benefits under the Severance Plan are conditioned on the covered employee's execution and delivery of a release of claims against us and the employee's compliance with any applicable noncompetition, nonsolicitation or other obligations to us. If a covered employee fails to comply with the terms of such release and obligations, we may recoup from such employee the applicable cash severance pay, COBRA contributions or the value of equity award acceleration provided to the employee under the Severance Plan.

The Severance Plan is administered by our board of directors or a qualified administrator appointed by the board. Our board of directors may amend, modify or terminate the Severance Plan at any time in its sole discretion, provided that (i) any such amendment, modification or termination made prior to a change in control

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that adversely affects the rights of any covered employee shall be approved by a majority of our board of directors, including our Chief Executive Officer, (ii) no such amendment, modification or termination may affect the rights of a covered employee then receiving payments or benefits under the Severance Plan without the consent of such person, and (iii) neither we, our board of directors, any of our successors, nor the plan administrator may amend, modify or terminate the Severance Plan for one year following a change in control. Our board of directors intends to review the Severance Plan at least annually.

### **Other Agreements**

We have entered into non-disclosure, non-competition and assignment of intellectual property agreements with each of our executive officers. Under the non-disclosure, non-competition and assignment of intellectual property agreements, each executive officer has agreed (1) to protect our confidential and proprietary information, (2) to assign to us related intellectual property that is developed during such executive officer's employment and that relates to our business or research and development or from the use of our property, premises or confidential information, (3) not to compete with us during his or her employment and for a period of one year after the termination of his or her employment and (4) not to solicit our employees or customers during his or her employment and for a period of one year after the termination of his or her employment.

### **Stock Option and Other Compensation Plans**

#### ***2007 Stock Incentive Plan***

The 2007 Plan was first adopted by our board of directors in February 2007 and first approved by our stockholders in March 2007 and was amended in May 2007, April 2009, September 2009, March 2010, November 2010, October 2011, December 2011, November 2012, January 2013, February 2013 and January 2014 to increase the number of shares available for issuance under the plan. The 2007 Plan provides for the grant of incentive stock options, nonstatutory stock options, restricted stock, restricted stock units and other stock-based awards. Our employees, officers, directors, consultants and advisors are eligible to receive awards under the 2007 Plan. However, incentive stock options may only be granted to our employees.

Our board of directors administers the 2007 Plan. Pursuant to the terms of the 2007 Plan, our board of directors selects the recipients of awards and determines:

- the number of shares of our common stock covered by options;
- the type of options to be granted;
- the terms, conditions and limitations applicable to the exercise of options;
- the duration of options;
- the exercise price of options; and
- the number of shares of our common stock subject to, and the terms and conditions of, any awards of restricted stock, restricted stock units, and other stock-based awards, including conditions for vesting and repurchase (or forfeiture) and the issue price or purchase price, if any.

To the extent permitted by applicable law, our board of directors may delegate its powers under the 2007 Plan to one or more committees or subcommittees of our board.

As of January 31, 2014, (i) there were 18,500,000 shares of our common stock reserved for issuance under the 2007 Plan, subject to adjustment as provided below in connection with changes in capitalization and (ii) there were outstanding options to purchase an aggregate of 17,687,568 shares of common stock at a weighted-average exercise price of \$0.33 per share. Upon the closing of this offering, we will grant no further stock options or other awards under the 2007 Plan, but awards outstanding under the 2007 Plan may extend beyond that date. However,

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any shares of common stock reserved for issuance under the 2007 Plan that remain available for grant immediately prior to the closing of this offering and any shares of common stock subject to awards under the 2007 Plan that expire, terminate, or are otherwise surrendered, canceled, forfeited or repurchased at their original issuance price pursuant to a contractual repurchase right shall be available for issuance under the 2014 Stock Incentive Plan (subject, in the case of incentive stock options, to any limitations of the Internal Revenue Code).

In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of our common stock other than an ordinary cash dividend:

- the number and class of securities available under the 2007 Plan;
- the number and class of securities and exercise price per share of each outstanding option under the 2007 Plan;
- the number of shares subject to and the repurchase price per share subject to each outstanding restricted stock award under the 2007 Plan; and/or
- the terms of each other outstanding award under the 2007 Plan

shall be equitably adjusted by us (or substitute awards may be made, if applicable) in a manner determined by our board of directors.

Upon a reorganization event, as defined in the 2007 Plan, our board of directors may, in the case of awards under the 2007 Plan, take one or more of the following actions as to all or any, or any portion of, outstanding awards, other than restricted stock awards:

- provide that each outstanding award will be assumed or a substantially similar award will be substituted by the acquiring or succeeding corporation (or an affiliate thereof);
- provide, upon notice to the participant, that unexercised awards will terminate immediately prior to the consummation of such reorganization event unless exercised within a specified period of time following the date of such notice;
- provide that outstanding awards will become exercisable, realizable or deliverable, or restrictions applicable to such awards will lapse, in full or in part, at or immediately prior to such reorganization event;
- in the event of a reorganization event pursuant to which holders of our common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to a participant equal to the excess, if any, of (i) the acquisition price times the number of shares of our common stock subject to such participant's outstanding awards (to the extent then exercisable at prices not in excess of the acquisition price), over (ii) the aggregate exercise price of all such outstanding awards and any applicable tax withholdings, in exchange for the termination of such awards;
- provide that in the event of a liquidation or dissolution, awards will convert into the right to receive liquidation proceeds (if applicable, net of the exercise price thereof and any applicable tax withholdings); or
- any combination of the foregoing.

Our board of directors is not obligated under the 2007 Plan to treat all awards, or all awards of the same type, identically.

Upon a reorganization event, as defined in the 2007 Plan, other than a liquidation or dissolution, the repurchase and other rights we may have under each outstanding restricted stock award under the 2007 Plan shall inure to the benefit of our successor and shall, unless our board of directors determines otherwise, apply to the

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cash, securities or other property which our common stock was converted into or exchanged for pursuant to such reorganization event in the same manner and to the same extent as they applied to the common stock subject to such restricted stock award. Upon a reorganization event involving a liquidation or dissolution, except to the extent specifically provided to the contrary in the instrument evidencing any restricted stock award under the 2007 Plan or any other agreement between a participant and us, all restrictions and conditions on all restricted stock awards then outstanding shall automatically be deemed terminated or satisfied.

Our board of directors may at any time provide that any award under the 2007 Plan shall become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part. Our board of directors may amend, modify or terminate any outstanding award under the 2007 Plan, including but not limited to, substituting another award of the same or a different type, changing the date of exercise or realization, and converting an incentive stock option to a nonstatutory stock option, subject in certain cases to the participant's consent. Our board of directors may amend, suspend or terminate the 2007 Plan or any portion thereof at any time, subject to any stockholder approval requirements under the Internal Revenue Code with respect to incentive stock options. Unless otherwise specified in the amendment, any amendment to the 2007 Plan will apply to, and be binding on the holders of, all awards outstanding under the 2007 Plan at the time the amendment is adopted, provided that our board of directors determines that such amendment does not materially and adversely affect the rights of participants under the 2007 Plan.

### **2014 Stock Incentive Plan**

We expect our board of directors to adopt and our stockholders to approve the 2014 Stock Incentive Plan, or 2014 Plan, which will become effective upon the closing of this offering. The 2014 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units, and other stock-based awards. Upon effectiveness of the 2014 Plan, the number of shares of our common stock that will be reserved for issuance under the 2014 Plan will equal the sum of (1) \_\_\_\_\_ shares plus (2) the number of shares (up to \_\_\_\_\_ shares) equal to the sum of the number of shares of our common stock then available for grant under the 2007 Plan and the number of shares of our common stock subject to outstanding awards under the 2007 Plan that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right (subject, in the case of incentive stock options, to any limitations of the Internal Revenue Code) plus (3) an annual increase to be added on the first day of each fiscal year, beginning with the fiscal year ending December 31, 2015 and continuing until, and including, the fiscal year ending December 31, 2024, equal to the least of (A) \_\_\_\_\_ shares of our common stock, (B) \_\_\_\_\_ % of the number of shares of our common stock outstanding on the first day of the fiscal year, and (C) an amount determined by our board of directors.

Our employees, officers, directors, consultants and advisors will be eligible to receive awards under the 2014 Plan; however, incentive stock options may only be granted to our employees.

The 2014 Plan will be administered by our board of directors. Pursuant to the terms of the 2014 Plan, our board of directors will select the recipients of awards and determine:

- the number of shares of common stock covered by options and the conditions and limitations applicable to the exercise of options;
- the type of options to be granted;
- the exercise price of options, which must be at least equal to the fair market value of our common stock on the date of grant;
- the duration of options, which may not be in excess of ten years; and
- the number of shares of common stock subject to any stock appreciation rights, restricted stock awards, restricted stock units or other stock-based awards and the terms and conditions of such awards, including the issue price or purchase price (if any) and conditions for vesting and repurchase (or

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forfeiture), provided that the measurement price for stock appreciation rights must be at least equal to the fair market value of our common stock on the date of grant and the duration of stock appreciation rights may not be in excess of ten years.

To the extent permitted by applicable law, our board of directors may delegate its powers under the 2014 Plan to one or more committees or subcommittees of our board or to one or more of our officers. If our board of directors delegates authority to an officer to grant awards under the 2014 Plan, the officer will have the power to make awards to all of our employees, except executive officers. Our board of directors will fix the terms of the awards to be granted by such officer, including the exercise price of such awards (which may include a formula by which the exercise price will be determined), and the maximum number of shares subject to awards that such officer may make.

In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of our common stock other than an ordinary cash dividend, our board of directors is required by the 2014 Plan to make equitable adjustments, in a manner determined by our board, to:

- the number and class of securities available and the share counting rules under the 2014 Plan;
- the number and class of securities and exercise price per share of each outstanding option;
- the share and per-share provisions and measurement price of each outstanding stock appreciation right;
- the number of shares and the repurchase price per share subject to each outstanding restricted stock award or restricted stock unit award; and
- the share and per-share-related provisions and purchase price, if any, of any outstanding other stock-based award.

Upon a reorganization event, as defined in the 2014 Plan, our board of directors, may, in its sole discretion, take any one or more of the following actions pursuant to the 2014 Plan, as to some or all outstanding awards, other than restricted stock:

- provide that all outstanding awards will be assumed, or substituted equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof);
- upon written notice to a participant, provide that the participant's unvested and/or unexercised awards will terminate immediately prior to the consummation of such reorganization event unless exercised by the participant (to the extent then exercisable) within a specified period following the date of such notice;
- provide that outstanding awards will become exercisable, realizable or deliverable, or restrictions applicable to an award will lapse, in whole or in part, prior to or upon the reorganization event;
- in the event of a reorganization event pursuant to which holders of our common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to the participants with respect to each award held by a participant equal to (i) the number of shares of common stock subject to the vested portion of the award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such reorganization event) multiplied by (ii) the excess, if any, of the cash payment for each share surrendered in the reorganization event over the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of such awards;
- provide that, in connection with a liquidation or dissolution, awards convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings); and/or
- any combination of the foregoing.



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Our board of directors is not obligated under the 2014 Plan to treat all awards, all awards held by a participant, or all awards of the same type, identically.

In the case of certain restricted stock unit awards, no assumption or substitution will be permitted and the restricted stock unit awards will instead be settled in accordance with the terms of the applicable restricted stock unit agreement, and in certain circumstances, any unvested restricted stock unit awards will be terminated immediately prior to the consummation of the reorganization event without any payment in exchange therefor.

Upon the occurrence of a reorganization event other than a liquidation or dissolution, the repurchase and other rights under each outstanding restricted stock award will continue for the benefit of the successor company and will, unless our board of directors may otherwise determine, apply to the cash, securities or other property into which our common stock is converted pursuant to the reorganization event in the same manner and to the same extent as they applied to such restricted stock. Upon the occurrence of a reorganization event involving a liquidation or dissolution, all restrictions and conditions on each outstanding restricted stock award will automatically be deemed terminated or satisfied, unless otherwise provided in the agreement evidencing the restricted stock award or any other agreement between a participant and us.

At any time, our board of directors may provide that any award under the 2014 Plan shall become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

Except with respect to certain actions requiring stockholder approval under the Internal Revenue Code or the rules of the NASDAQ Stock Market, our board of directors may amend, modify or terminate any outstanding award under the 2014 Plan, including but not limited to, substituting therefor another award of the same or a different type, changing the date of exercise or realization, and converting an incentive stock option into a nonstatutory stock option, subject to certain participant consent requirements. Unless our stockholders approve such action, the 2014 Plan provides that we may not (except as otherwise permitted in connection with a change in capitalization or reorganization event):

- amend any outstanding stock option or stock appreciation right granted under the 2014 Plan to provide an exercise or measurement price per share that is lower than the then-current exercise or measurement price per share of such outstanding award;
- cancel any outstanding option or stock appreciation right (whether or not granted under the 2014 Plan) and grant in substitution therefor new awards under the 2014 Plan (other than substitute awards permitted in connection with a merger or consolidation of an entity with us or our acquisition of property or stock of another entity) covering the same or a different number of shares of our common stock and having an exercise or measurement price per share lower than the then-current exercise or measurement price per share of the cancelled award;
- cancel in exchange for a cash payment any outstanding option or stock appreciation right with an exercise or measurement price per share above the then-current fair market value of our common stock; or
- take any other action that constitutes a “repricing” within the meaning of the rules of the NASDAQ Stock Market.

No award may be granted under the 2014 Plan after \_\_\_\_\_, 2024, but awards previously granted may extend beyond that date. Our board of directors may amend, suspend or terminate the 2014 Plan or any portion thereof at any time, except that stockholder approval will be required to comply with the Internal Revenue Code or stock market requirements.

### **2014 Employee Stock Purchase Plan**

We expect our board of directors to adopt and our stockholders to approve the 2014 employee stock purchase plan, or the 2014 ESPP, which will become effective upon the closing of this offering. The 2014 ESPP will be administered by our board of directors or by a committee appointed by our board of directors. The 2014 ESPP initially provides participating employees with the opportunity to purchase up to an aggregate \_\_\_\_\_ of shares of our common stock. The number of shares of our common stock reserved for issuance under the 2014 ESPP will automatically increase on the first day of each fiscal year, commencing on January 1, 2015 and ending on January 1, 2024, in an amount equal to the least of (i) \_\_\_\_\_ shares of our common stock, (ii) \_\_\_\_\_ % of the total number of shares of our common stock outstanding on the first day of the applicable year, and (iii) an amount determined by our board of directors.

All of our employees or employees of any designated subsidiary, as defined in the 2014 ESPP, are eligible to participate in the 2014 ESPP, provided that:

- such person is customarily employed by us or a designated subsidiary for more than 20 hours a week and for more than five months in a calendar year;
- such person has been employed by us or by a designated subsidiary for at least 30 days prior to enrolling in the 2014 ESPP; and
- such person was our employee or an employee of a designated subsidiary on the first day of the applicable offering period under the 2014 ESPP.

No employee may purchase shares of our common stock under the 2014 ESPP and any of our other employee stock purchase plans in excess of \$25,000 of the fair market value of our common stock (as of the date of the option grant) in any calendar year. In addition, no employee may purchase shares of our common stock under the 2014 ESPP that would result in the employee owning 5% or more of the total combined voting power or value of our stock or the stock of any of our subsidiaries.

We expect to make one or more offerings to our eligible employees to purchase stock under the 2014 ESPP beginning at such time as our board of directors may determine. Each offering will consist of a six-month offering period during which payroll deductions will be made and held for the purchase of our common stock at the end of the offering period. Our board of directors may, at its discretion, choose a different period of not more than 12 months for offerings.

On the commencement date of each offering period, each eligible employee may authorize up to a maximum of 15% of his or her compensation to be deducted by us during the offering period. Each employee who continues to be a participant in the 2014 ESPP on the last business day of the offering period will be deemed to have exercised an option to purchase from us the number of whole shares of our common stock that his or her accumulated payroll deductions on such date will pay for, not in excess of the maximum numbers set forth above. Under the terms of the 2014 ESPP, the purchase price shall be determined by our board of directors for each offering period and will be at least 85% of the applicable closing price of our common stock. If our board of directors does not make a determination of the purchase price, the purchase price will be 85% of the lesser of the closing price of our common stock on the first business day of the offering period or on the last business day of the offering period.

An employee who is not a participant on the last day of the offering period is not entitled to purchase shares under the 2014 ESPP, and the employee's accumulated payroll deductions will be refunded. An employee's rights under the 2014 ESPP terminate upon voluntary withdrawal from an offering under the 2014 ESPP at any time, or when the employee ceases employment for any reason.

We will be required to make equitable adjustments to the number and class of securities available under the 2014 ESPP, the share limitations under the 2014 ESPP, and the purchase price for an offering period under the

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2014 ESPP to reflect stock splits, reverse stock splits, stock dividends, recapitalizations, combinations of shares, reclassifications of shares, spin-offs and other similar changes in capitalization or events or any dividends or distributions to holders of our common stock other than ordinary cash dividends.

In connection with a merger or other reorganization event, as defined in the 2014 ESPP, our board of directors or a committee of our board of directors may take any one or more of the following actions as to outstanding options to purchase shares of our common stock under the 2014 ESPP on such terms as our board or committee determines:

- provide that options shall be assumed, or substantially equivalent options shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof);
- upon written notice to employees, provide that all outstanding options will be terminated immediately prior to the consummation of such reorganization event and that all such outstanding options will become exercisable to the extent of accumulated payroll deductions as of a date specified by our board or committee in such notice, which date shall not be less than ten days preceding the effective date of the reorganization event;
- upon written notice to employees, provide that all outstanding options will be cancelled as of a date prior to the effective date of the reorganization event and that all accumulated payroll deductions will be returned to participating employees on such date;
- in the event of a reorganization event under the terms of which holders of our common stock will receive upon consummation thereof a cash payment for each share surrendered in the reorganization event, change the last day of the offering period to be the date of the consummation of the reorganization event and make or provide for a cash payment to each employee equal to (1) the cash payment for each share surrendered in the reorganization event times the number of shares of our common stock that the employee's accumulated payroll deductions as of immediately prior to the reorganization event could purchase at the applicable purchase price, where the acquisition price is treated as the fair market value of our common stock on the last day of the applicable offering period for purposes of determining the purchase price and where the number of shares that could be purchased is subject to the applicable limitations under the 2014 ESPP minus (2) the result of multiplying such number of shares by the purchase price; and/or
- provide that, in connection with our liquidation or dissolution, options shall convert into the right to receive liquidation proceeds (net of the purchase price thereof).

Our board of directors may at any time, and from time to time, amend or suspend the 2014 ESPP or any portion thereof. We will obtain stockholder approval for any amendment if such approval is required by Section 423 of the Internal Revenue Code. Further, our board of directors may not make any amendment that would cause the 2014 ESPP to fail to comply with Section 423 of the Internal Revenue Code. The 2014 ESPP may be terminated at any time by our board of directors. Upon termination, we will refund all amounts in the accounts of participating employees.

### ***401(k) retirement plan***

We maintain a defined contribution employee retirement plan for our employees. Our 401(k) plan is intended to qualify as a tax-qualified plan under Section 401 of the Internal Revenue Code so that contributions to our 401(k) plan, and income earned on such contributions, are not taxable to participants until withdrawn or distributed from the 401(k) plan. Our 401(k) plan provides that each participant may contribute up to 100% of his or her pre-tax compensation, up to a statutory limit, which was \$17,000 for 2012 and \$17,500 for 2013. Participants who are at least 50 years old can also make "catch-up" contributions, which in 2012 and 2013 could be up to an additional \$5,500 above the statutory limit. Under our 401(k) plan, each employee is fully vested in his or her deferred salary contributions. Employee contributions are held and invested by the plan's trustee, subject to participants' ability to give investment directions by following certain procedures. We match participant contributions up to 4% of a participant's annual compensation, subject to statutory limits.

## 2013 Director Compensation

The following table sets forth information regarding compensation earned by our non-employee directors during 2013.

Name	Fees Earned or Paid in Cash (\$)	Option Awards (\$)(1)	Total (\$)
Alan L. Crane(2)	—	97,681	97,681
Paul A. Friedman, M.D.(3)	—	—	—
Steven E. Hall, Ph.D.	—	—	—
William T. McKee(3)	—	—	—
William H. Rastetter, Ph.D.(3)	—	—	—
Ram Sasisekharan, Ph.D.	12,500(4)	—	12,500
Robert I. Tepper, M.D.	—	—	—

- (1) The amount reported in the “Option Awards” column reflect the aggregate fair value computed as of the grant date of the options awarded during the year computed in accordance with the provisions of FASB ASC, Topic 718. See note 10 to our consolidated financial statements appearing at the end of this prospectus for assumptions underlying the valuation of equity awards. Including these options, as of December 31, 2013:
  - Mr. Crane held stock options to purchase 768,855 shares of common stock, which were vested with respect to 250,000 shares in the aggregate; and
  - Dr. Tepper held stock options to purchase 50,000 shares of common stock, which were vested with respect to 25,000 shares in the aggregate.
- (2) The option granted to Mr. Crane in 2013 was granted in recognition of his services to us other than in his role as a director. This option vests as follows: (i) 172,951 of the shares shall vest either upon the occurrence of a change in control event meeting certain objective criteria or our stock reaching a specified average price per share; (ii) an additional 172,952 of the shares shall vest either upon the occurrence of a change in control event meeting certain objective criteria or our stock reaching a specified average price per share and (iii) an additional 172,982 of the shares shall vest either upon the occurrence of a change in control event meeting certain objective criteria or our stock reaching a specified average price per share. In addition, with respect to this option, Mr. Crane will be entitled to certain cash payments following a change in control to the extent such option is not fully vested at the time of the change in control and future cash consideration is paid in connection with the transaction, which payments would have resulted in more shares vesting pursuant to the option agreement if they had they been paid at the time of the closing of the change in control.
- (3) Each of Dr. Friedman, Mr. McKee and Dr. Rastetter joined our board of directors in January 2014.
- (4) The payments made to Dr. Sasisekharan were made in exchange for services Dr. Sasisekharan provided in 2013 pursuant to a consulting agreement with us.

Prior to this offering, we did not have a formal non-employee director compensation policy. We did not compensate any non-employee director for his service as a director in 2013. We have historically reimbursed our non-employee directors for reasonable travel and out-of-pocket expenses incurred in connection with attending board of director and committee meetings. Dr. Fetzter, one of our directors who also serves as our President and Chief Executive Officer, does not receive any additional compensation for his service as a director. The compensation that we pay to our President and Chief Executive Officer is discussed in the “Executive Compensation” section of this prospectus.

In January 2014, in connection with their election to our board, we granted each of Dr. Friedman, Mr. McKee and Dr. Rastetter an option to purchase 200,000 shares of our common stock. The options each have an exercise price of \$0.73 and vest in three equal annual installments beginning on the first anniversary of such director’s election.

### *Director compensation policy following this offering*

Our board has established the following compensation policy for non-employee directors, effective upon the closing of this offering:

- each non-employee director will receive, on an annual basis, a cash retainer of \$30,000;
- each non-employee director who has then served on our board of directors for at least six months will receive, on the date of the first board meeting held after each year’s annual meeting of stockholders, an option to purchase \_\_\_\_\_ shares of our common stock, which shall vest

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- the chairman of our board of directors will receive an additional cash retainer of \$30,000;
- each non-employee director who serves on the audit committee will receive a cash retainer of \$7,500 per year (\$15,000 for the chair);
- each non-employee director who serves on the compensation committee will receive a cash retainer of \$5,000 per year (\$10,000 for the chair);
- each non-employee director who serves on the nominating and corporate governance committee will receive a cash retainer of \$3,500 (\$7,000 for the chair); and
- each non-employee director elected to the board following the closing of this offering will receive a one-time award of an option to purchase shares of our common stock, which option shall vest in three equal annual installments.

In addition, we will continue to reimburse our non-employee directors for reasonable travel and other expenses incurred in connection with attending board of director and committee meetings.

### **Limitation of Liability and Indemnification**

As permitted by Delaware law, we have adopted provisions in our certificate of incorporation, which will be effective as of the closing date of this offering, that limit or eliminate the personal liability of our directors. Our certificate of incorporation limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breaches of their fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock repurchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations do not apply to liabilities arising under federal securities laws and do not affect the availability of equitable remedies, including injunctive relief or rescission. If Delaware law is amended to authorize the further elimination or limiting of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law as so amended.

- we will indemnify our directors and officers to the fullest extent permitted by law;
- we may indemnify our other employees and other agents to the same extent that we indemnify our officers and directors, unless otherwise determined by our board of directors; and
- we will advance expenses to our directors and officers in connection with legal proceedings in connection with a legal proceeding to the fullest extent permitted by law.

The indemnification provisions contained in our certificate of incorporation that will be effective as of the closing date of this offering are not exclusive. In addition, we have entered into indemnification agreements with our directors and executive officers. These indemnification agreements require us, among other things, to indemnify each such director and executive officer for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of our directors or executive officers.

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We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and officers. Insofar as indemnification for liabilities arising under the Securities Act of 1933, which we refer to as the Securities Act, may be permitted to directors, officers or persons controlling our company pursuant to the foregoing provisions, we understand that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

In addition, we maintain standard policies of insurance under which coverage is provided to our directors and officers against losses arising from claims made by reason of breach of duty or other wrongful act, and to us with respect to payments which may be made by us to such directors and officers pursuant to the above indemnification provisions or otherwise as a matter of law.

**CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS**

Since January 1, 2011, we have engaged in the following transactions with our directors and executive officers and holders of more than 5% of our voting securities and affiliates of our directors, executive officers and 5% stockholders. We believe that all of the transactions described below were made on terms no less favorable to us than could have been obtained from unaffiliated third parties.

**Series C Preferred Stock Financing**

In June 2011, we issued and sold an aggregate of 10,135,128 shares of our Series C convertible preferred stock at a price of \$0.74 per share for an aggregate purchase price of approximately \$7.5 million. The following table sets forth the aggregate number of shares of our Series C convertible preferred stock that we issued to our officers, directors and 5% stockholders and their respective affiliates in these transactions.

<b>Purchaser</b>	<b>Shares of Series C Convertible Preferred Stock</b>	<b>Purchase Price (\$)</b>
Entities affiliated with Polaris Partners(1)	2,971,846	2,199,166
Entities affiliated with Venrock(2)	1,857,545	1,374,583
Entities affiliated with Lux Capital(3)	836,104	618,717
Lilly Ventures Fund I LLC(4)	4,222,973	3,125,000
William H. Rastetter(5)	37,173	27,508

- (1) Consists of (a) 687,062 shares of Series C convertible preferred stock purchased by Polaris Venture Partners V, L.P.; (b) 13,390 shares of Series C convertible preferred stock purchased by Polaris Venture Partners Entrepreneurs' Fund V, L.P.; (c) 4,706 shares of Series C convertible preferred stock purchased by Polaris Venture Partners Founders' Fund V, L.P.; (d) 6,870 shares of Series C convertible preferred stock purchased by Polaris Venture Partners Special Founders' Fund V, L.P.; (e) 2,218,233 shares of Series C convertible preferred stock purchased by Polaris Venture Partners IV, L.P. and (f) 41,585 shares of Series C convertible preferred stock purchased by Polaris Venture Partners Entrepreneurs' Fund IV, L.P. Alan Crane, a member of our board of directors, is a general partner of Polaris Venture Partners, an affiliate of Polaris Venture Partners V, L.P., Polaris Venture Partners Entrepreneurs' Fund V, L.P., Polaris Venture Partners Founders' Fund V, L.P., Polaris Venture Partners Special Founders' Fund V, L.P., Polaris Venture Partners IV, L.P. and Polaris Venture Partners Entrepreneurs' Fund IV, L.P. (collectively, the "Polaris Funds").
- (2) Consists of (a) 1,676,063 shares of Series C convertible preferred stock purchased by Venrock Associates V, L.P.; (b) 142,201 shares of Series C convertible preferred stock purchased by Venrock Partners V, L.P. and (c) 39,380 shares of Series C convertible preferred stock purchased by Venrock Entrepreneurs Fund V, L.P.
- (3) Consists of (a) 688,969 shares of Series C convertible preferred stock purchased by Lux Ventures II, L.P.; (b) 28,892 shares of Series C convertible preferred stock purchased by Lux Ventures II Sidecar, L.P. and (c) 118,243 shares of Series C convertible preferred stock purchased by Lux Ventures II Partners Fund I LLC.
- (4) Steven E. Hall, a member of our board of directors, is a venture partner of Lilly Ventures Fund I LLC.
- (5) Consists of shares held by William H. Rastetter and Marisa G. Rastetter as community property. Dr. Rastetter is a member of our board of directors.

**Series D Convertible Preferred Stock Financing**

In December 2011, we issued and sold an aggregate of 18,072,287 shares of our Series D convertible preferred stock at a price of \$0.83 per share for an aggregate purchase price of approximately \$15.0 million. In November 2012, we issued and sold an aggregate of 15,662,650 shares of our Series D convertible preferred stock at a price of \$0.83 per share for an aggregate purchase price of approximately \$13.0 million.

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The following table sets forth the aggregate number of shares of our Series D convertible preferred stock that we issued to our officers, directors and 5% stockholders and their respective affiliates.

<u>Purchaser</u>	<u>Shares of Series D Convertible Preferred Stock</u>	<u>Purchase Price (\$)</u>
Entities affiliated with Polaris Partners(1)	8,598,139	7,136,455
Entities affiliated with Venrock(2)	5,500,704	4,565,584
Entities affiliated with Lux Capital(3)	2,488,436	2,065,402
Lilly Ventures Fund I LLC(4)	4,340,831	3,602,890
CVF, LLC	12,048,192	10,000,000
William H. Rastetter(5)	110,107	91,389

- (1) Consists of (a) 5,320,189 shares of Series D convertible preferred stock purchased by Polaris Venture Partners V, L.P.; (b) 103,691 shares of Series D convertible preferred stock purchased by Polaris Venture Partners Entrepreneurs' Fund V, L.P.; (c) 36,444 shares of Series D convertible preferred stock purchased by Polaris Venture Partners Founders' Fund V, L.P.; (d) 53,200 shares of Series D convertible preferred stock purchased by Polaris Venture Partners Special Founders' Fund V, L.P.; (e) 3,027,852 shares of Series D convertible preferred stock purchased by Polaris Venture Partners IV, L.P. and (f) 56,763 shares of Series D convertible preferred stock purchased by Polaris Venture Partners Entrepreneurs' Fund IV, L.P. Alan Crane, a member of our board of directors, is a general partner of Polaris Venture Partners, an affiliate of the Polaris Funds.
- (2) Consists of (a) 4,963,287 shares of Series D convertible preferred stock purchased by Venrock Associates V, L.P.; (b) 420,803 shares of Series D convertible preferred stock purchased by Venrock Partners V, L.P. and (c) 116,614 shares of Series D convertible preferred stock purchased by Venrock Entrepreneurs Fund V, L.P.
- (3) Consists of (a) 2,270,840 shares of Series D convertible preferred stock purchased by Lux Ventures II, L.P.; (b) 95,229 shares of Series D convertible preferred stock purchased by Lux Ventures II Sidecar, L.P. and (c) 122,367 shares of Series D convertible preferred stock purchased by Lux Ventures II Partners Fund I LLC.
- (4) Steven E. Hall, a member of our board of directors, is a venture partner of Lilly Ventures Fund I LLC.
- (5) Consists of shares held by William H. Rastetter and Marisa G. Rastetter as community property. Dr. Rastetter is a member of our board of directors.

### **Agreement with Arsia Therapeutics, Inc.**

In April 2013, we entered into a laboratory, equipment sharing, services and license agreement with Arsia Therapeutics, Inc. Arsia Therapeutics provided us with a notice of termination and the arrangement will terminate in April of 2014. Pursuant to this agreement, Arsia Therapeutics paid us \$84,000 during 2013 and, during 2014, will pay us approximately \$50,000. In addition, we may enter into an additional agreement with Arsia Therapeutics, pursuant to which we will sell it an excess piece of equipment. Alan Crane, who is one of our directors, is the President and a director of Arsia Therapeutics.



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### Bridge Financing

In August 2013, we issued and sold 7% convertible promissory notes in an aggregate principal amount of \$8,823,903. We refer to these notes as our 2013 convertible notes. The following table sets forth the principal amount of our 2013 convertible notes that we issued to our directors, officers and 5% stockholders and their respective affiliates.

<u>Name</u>	<u>Aggregate Principal Amount of 2013 Convertible Notes (\$)</u>	<u>Number of Shares of Common Stock Issuable upon Conversion of 2013 Convertible Notes(1)</u>
CVF, LLC	3,000,000	
Entities affiliated with Polaris Partners(2)	2,577,902	
Entities affiliated with Venrock(3)	1,655,363	
Lilly Ventures Fund I LLC(4)	1,285,556	
Entities affiliated with Lux Capital(5)	250,000	
William H. Rastetter(5)	33,135	

- (1) The number of shares of common stock issuable upon conversion of our 2013 convertible notes is determined based on an assumed initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and assuming this offering closes on .
- (2) Consists of 2013 convertible notes issued and sold to (a) Polaris Venture Partners V, L.P. in a principal amount of \$2,487,507; (b) Polaris Venture Partners Entrepreneurs' Fund V, L.P. in a principal amount of \$48,481; (c) Polaris Venture Partners Founders' Fund V, L.P. in a principal amount of \$17,039 and (d) Polaris Venture Partners Special Founders' Fund V, L.P. in a principal amount of \$24,875. Alan Crane, a member of our board of directors, is a general partner of Polaris Venture Partners, an affiliate of Polaris Venture Partners V, L.P., Polaris Venture Partners Entrepreneurs' Fund V, L.P., Polaris Venture Partners Founders' Fund V, L.P. and Polaris Venture Partners Special Founders' Fund V, L.P.
- (3) Consists of 2013 convertible notes issued and sold to (a) Venrock Associates V, L.P. in a principal amount of \$1,493,634; (b) Venrock Partners V, L.P. in a principal amount of \$126,635 and (c) Venrock Entrepreneurs Fund V, L.P. in a principal amount of \$35,094.
- (4) Steven E. Hall, a member of our board of directors, is a venture partner of Lilly Ventures Fund I LLC.
- (5) Consists of 2013 convertible notes issued and sold to (a) Lux Ventures II, L.P. in a principal amount of \$228,139; (b) Lux Ventures II Sidecar, L.P. in a principal amount of \$9,567 and (c) Lux Ventures II Partners Fund I LLC in a principal amount of \$12,294.
- (6) Consists of 2013 convertible notes issued and sold to William H. Rastetter and Marisa G. Rastetter as community property. Dr. Rastetter is a member of our board of directors.

In February 2014, we issued and sold 7% convertible promissory notes in an aggregate principal amount of \$6,000,000. The following table sets forth the principal amount of the convertible promissory notes that we issued to our directors, officers and 5% stockholders and their respective affiliates.

<u>Name</u>	<u>Aggregate Principal Amount of 2014 Convertible Notes (\$)</u>	<u>Number of Shares of Common Stock Issuable upon Conversion of 2014 Convertible Notes(1)</u>
CVF, LLC	819,319	
Entities affiliated with Polaris Partners(2)	2,151,000	
Entities affiliated with Venrock(3)	1,381,200	
Lilly Ventures Fund I LLC(4)	1,072,800	
Entities affiliated with Lux Capital(5)	530,081	
William H. Rastetter(5)	27,600	

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- (1) The 2014 convertible notes convert at 77.5% of the initial public offering price. The number of shares of common stock issuable upon conversion of our 2014 convertible notes is determined based on an assumed initial public offering price of \$        per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and assuming this offering is completed on       , 2014.
- (2) Consists of 2014 convertible notes issued and sold to (a) Polaris Venture Partners V, L.P. in a principal amount of \$2,075,573, (b) Polaris Venture Partners Entrepreneurs' Fund V, L.P. in a principal amount of \$40,453, (c) Polaris Venture Partners Founders' Fund V, L.P. in a principal amount of \$14,218 and (d) Polaris Venture Partners Special Founders' Fund V, L.P. in a principal amount of \$20,756. Alan Crane, a member of our board of directors, is a general partner of Polaris Venture Partners, an affiliate of Polaris Venture Partners V, L.P., Polaris Venture Partners Entrepreneurs' Fund V, L.P., Polaris Venture Partners Founders' Fund V, L.P. and Polaris Venture Partners Special Founders' Fund V, L.P.
- (3) Consists of 2014 convertible notes issued and sold to (a) Venrock Associates V, L.P. in a principal amount of \$1,246,257, (b) Venrock Partners V, L.P. in a principal amount of \$105,662 and (c) Venrock Entrepreneurs Fund V, L.P. in a principal amount of \$29,281.
- (4) Steven E. Hall, a member of our board of directors, is a venture partner of Lilly Ventures Fund I LLC.
- (5) Consists of 2014 convertible notes issued and sold to (a) Lux Ventures II, L.P. in a principal amount of \$479,876, (b) Lux Ventures II Sidecar, L.P. in a principal amount of \$20,124 and (c) Lux Ventures II Partners Fund I LLC in a principal amount of \$30,081.
- (6) Consists of 2014 convertible notes issued and sold to William H. Rastetter and Marisa G. Rastetter as community property. Dr. Rastetter is a member of our board of directors.

## **Registration Rights**

We are party to a second Series D convertible preferred stock purchase agreement with the holders of our preferred stock, including some of our directors and 5% stockholders and their affiliates and entities affiliated with certain of our directors. The second Series D convertible preferred stock purchase agreement provides these holders the right, following the closing of this offering, to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. See "Description of Capital Stock—Registration Rights" for additional information regarding these rights.

## **Indemnification Agreements**

Our certificate of incorporation, which will become effective upon the closing of this offering, provides that we will indemnify our directors and officers to the fullest extent permitted by Delaware law. In addition, we have entered into indemnification agreements with our directors. See "Executive Compensation—Limitation of Liability and Indemnification" for additional information regarding these agreements.

## **Policies and Procedures for Related Person Transactions**

In connection with this offering, our board of directors adopted a written related person transaction policy that sets forth policies and procedures for the review and approval or ratification of related person transactions. Effective upon the closing of this offering, this policy will cover any transaction, arrangement or relationship in which we were or are to be a participant, the amount involved exceeds \$120,000, and one of our executive officers, directors, director nominees or 5% stockholders, or their immediate family members, each of whom we refer to as a "related person," had or will have a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a "related person transaction," the related person must report the proposed related person transaction to our general counsel, or if we do not have a general counsel, our chief financial officer. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by our audit committee. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the audit committee will review, and, in its discretion, may ratify the related person transaction. The policy also permits the chairman of the committee to review and, if deemed

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appropriate, approve proposed related person transactions that arise between audit committee meetings, subject to ratification by the audit committee at its next meeting. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the audit committee after full disclosure of the related person's interest in the transaction. As appropriate for the circumstances, the audit committee will review and consider:

- the related person's interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

The audit committee may approve or ratify the transaction only if it determines that, under all of the circumstances, the transaction is in our best interests. The audit committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the SEC's related person transaction disclosure rule, our board of directors has determined that the following transactions do not create a material direct or indirect interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- interests arising solely from the related person's position as an executive officer of another entity (whether or not the person is also a director of such entity), that is a participant in the transaction, where (a) the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, (b) the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction, and (c) the amount involved in the transaction equals less than the greater of \$200,000 dollars or 5% of the annual gross revenues of the company receiving payment under the transaction; and
- a transaction that is specifically contemplated by provisions of our certificate of incorporation or bylaws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by our compensation committee in the manner specified in its charter.

We did not have a written policy regarding the review and approval of related person transactions prior to this offering. Nevertheless, with respect to such transactions, it has been the practice of our board of directors to consider the nature or and business reason for such transactions, how the terms of such transactions compared to those which might be obtained from unaffiliated third parties and whether such transactions were otherwise fair to and in our best interests.

## PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock, as of January 31, 2014 by:

- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our current executive officers and directors as a group.

The column entitled “Shares Beneficially Owned Prior to Offering—Percentage” is based on a total of 110,432,121 shares of our common stock outstanding as of January 31, 2014, including 99,028,475 shares of our common stock issuable upon the automatic conversion of all outstanding shares of our preferred stock upon the closing of this offering, but does not give effect to the conversion, as described below, of (1) an aggregate principal amount of \$8.8 million and all accrued but unpaid interest on our 2013 convertible notes upon the closing of this offering or (2) an aggregate principal amount of \$8.5 million and all accrued but unpaid interest on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, upon the closing of this offering. The column entitled “Shares Beneficially Owned After Offering—Percentage” is based on shares of our common stock to be outstanding after this offering, including (a) the shares of our common stock that we are selling in this offering, (b) the conversion of an aggregate principal amount of \$8.8 million and all accrued but unpaid interest outstanding on our 2013 convertible notes upon the closing of this offering into an aggregate of shares of our common stock, assuming an initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on , 2014 and (c) the conversion of an aggregate principal amount of \$8.5 million and all accrued but unpaid interest outstanding on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, upon the closing of this offering into an aggregate of shares of our common stock, assuming an initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on , 2014, but not including any additional shares issuable upon exercise of outstanding options or warrants.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to options or warrants that are currently exercisable or exercisable within 60 days of January 31, 2014 are considered outstanding and beneficially owned by the person holding the options or warrants for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to community property laws, where applicable. Except as otherwise set forth below, the address of the beneficial owner is c/o Cerulean Pharma Inc., 840 Memorial Drive, Cambridge, Massachusetts 02139.

<u>Name and address of Beneficial Owner</u>	<u>Shares Beneficially Owned Prior to Offering</u>		<u>Shares Beneficially Owned After Offering</u>	
	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>
<b>5% Stockholders</b>				
Entities affiliated with Polaris Partners(1)	35,802,985	32.3%		%
Entities affiliated with Venrock(2)	22,990,377	20.8%		%
Entities affiliated with Lux Capital(3)	10,418,276	9.4%		%
Entities affiliated with Lilly Ventures(4)	17,854,344	16.2%		%
Entities affiliated with Crown Ventures(5)	12,048,192	10.9%		%

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Name and address of Beneficial Owner	Shares Beneficially Owned Prior to Offering		Shares Beneficially Owned After Offering	
	Number	Percentage	Number	Percentage
<b>Named Executive Officers and Directors</b>				
Oliver S. Fetzer, Ph.D.(6)	3,875,384	3.4%		%
Christopher D. T. Guiffre, J.D.(7)	481,120	*		%
Edward Garmey, M.D.(8)	581,416	*		%
Alan L. Crane(9)	37,172,985	33.5%		%
Paul A. Friedman, M.D.	—	—		
Steven E. Hall, Ph.D.(10)	17,854,344	16.2%		%
William T. McKee	—	—		
William H. Rastetter, Ph.D.(11)	460,190	*		%
Ram Sasisekharan, Ph.D.(12)	1,200,000	1.1%		%
Robert I. Tepper, M.D.(13)	306,250	*		%
All current executive officers and directors as a group(14)	62,387,766	53.5%		%

\* Represents beneficial ownership of less than one percent of our outstanding common stock.

- (1) Consists of (a) 2,583,149 and 48,426 shares of common stock issuable upon conversion of Seed convertible preferred stock held by Polaris Venture Partners IV, LP (“Polaris IV”) and Polaris Ventures Partners Entrepreneurs’ Fund IV, LP (“Polaris EFund IV”), respectively; (b) 5,059,798 and 94,856 shares of common stock issuable upon conversion of Series A convertible preferred stock held by Polaris IV and Polaris EFund IV, respectively; (c) 2,624,733 and 49,206 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Polaris IV and Polaris EFund IV, respectively; (d) 6,555,026; 127,757; 44,903 and 65,551 shares of common stock issuable upon conversion of Series B-1 convertible preferred stock held by Polaris Venture Partners V, LP (“Polaris V”), Polaris Venture Partners Entrepreneurs’ Fund V, LP (“Polaris EFund V”), Polaris Ventures Partners Founders’ Fund V, LP (“Polaris FFund V”) and Polaris Venture Partners Special Founders’ Fund V, LP (“Polaris SFFund V”) and together with Polaris IV, Polaris EFund IV, Polaris V, Polaris EFund V and Polaris FFund V, the “Polaris Funds”), respectively; (e) 7,098,347; 133,072; 2,198,600; 42,849; 15,060 and 21,985 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Polaris IV, Polaris EFund IV, Polaris V, Polaris EFund V, Polaris FFund V and Polaris SFFund V, respectively; (f) 3,027,852; 56,763; 5,320,189; 103,691; 36,444 and 53,200 shares of common stock issuable upon conversion of Series D convertible preferred stock held by Polaris IV, Polaris EFund IV, Polaris V, Polaris EFund V, Polaris FFund V and Polaris SFFund V, respectively and (g) 76,053; 1,425; 351,286; 6,846; 2,406 and 3,512 shares of common stock issuable upon conversion of shares of Series C convertible preferred stock issuable upon the exercise of warrants held by Polaris IV, Polaris EFund IV, Polaris V, Polaris EFund V, Polaris FFund V and Polaris SFFund V, respectively. Each of the Polaris Funds has the sole voting and investment power with respect to the shares directly held by it. The general partner of each of Polaris IV and Polaris EFund IV is Polaris Venture Management Co. IV, LLC (“Polaris Management IV”). The general partner of each of Polaris V, Polaris EFund V, Polaris FFund V and Polaris SFFund V is Polaris Venture Management Co. V, LLC (“Polaris Management V”). Each of Polaris Management IV and Polaris Management V may be deemed to have sole voting and investment power with respect to the shares held by the Polaris Funds of which they are general partner, and each of Polaris Management IV and Polaris Management V disclaim beneficial ownership of all the shares held by such Polaris Funds except to the extent of their proportionate pecuniary interests therein. North Star Venture Management 2000, LLC (“North Star”) directly or indirectly provides investment advisory services to various venture capital funds, including the Polaris Funds. The members of North Star (the “Management Members”) are also members of Polaris Management IV and Polaris Management V, and as such, they may be deemed to share voting and investment power over the shares held by the Polaris Funds. The Management Members disclaim beneficial ownership of such shares, except to the extent of their proportionate pecuniary interest therein. Alan Crane, one of our directors, has an assignee interest in Polaris Management IV and Polaris Management V. To the extent that he is deemed to share voting and investment powers with respect to the

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shares held by the Polaris Funds, Mr. Crane disclaims beneficial ownership of all the shares held by the Polaris Funds except to the extent of his proportionate pecuniary interest therein. The mailing address of the beneficial owner is c/o Polaris Venture Partners, 1000 Winter Street, Suite 3350, Waltham, MA 02451.

- (2) Consists of (a) 4,651,045; 394,331 and 109,278 shares of common stock issuable upon conversion of Series A convertible preferred stock held by Venrock Associates V, LP (“VA5”), Venrock Partners V, LP (“VP5”) and Venrock Entrepreneurs V, LP (“VE5” and collectively with VA5 and VP5, the “Venrock Funds”), respectively; (b) 1,686,360; 142,975 and 39,621 shares of common stock issuable upon conversion of Series B convertible preferred stock held by VA5, VP5 and VE5, respectively; (c) 3,831,115; 324,813 and 90,013 shares of common stock issuable upon conversion of Series B-1 convertible preferred stock held by VA5, VP5 and VE5, respectively; (d) 5,363,403; 454,727 and 126,015 shares of common stock issuable upon conversion of Series C convertible preferred stock held by VA5, VP5 and VE5, respectively; (e) 4,963,287; 420,803 and 116,614 shares of common stock issuable upon conversion of Series D convertible preferred stock held by VA5, VP5 and VE5, respectively and (f) 249,015; 21,112 and 5,850 shares of common stock issuable upon conversion of Series C convertible preferred stock issuable upon the exercise of warrants held by VA5, VP5 and VE5, respectively. Venrock Management V, LLC (“VM5”), Venrock Partners Management V, LLC (“VPM5”) and VEF Management V, LLC (“VEFM5”) are the sole general partners of VA5, VP5 and VEF5, respectively, and may be deemed to own the shares held by the Venrock Funds. VM5, VPM5 and VEFM5 disclaim beneficial ownership of all the shares held by the Venrock Funds except to the extent of their proportionate pecuniary interest therein. The mailing address of the beneficial owner is 3340 Hillview Ave., Palo Alto, CA 94304.
- (3) Consists of (a) 1,978,875 and 82,986 shares of common stock issuable upon conversion of Series A convertible preferred stock held by Lux Ventures II, LP (“Lux II”) and Lux Ventures II Sidecar, LP (“Lux II Sidecar”), respectively; (b) 1,110,833 and 46,583 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Lux II and Lux II Sidecar, respectively; (c) 1,833,904 and 76,905 shares of common stock issuable upon conversion of Series B-1 convertible preferred stock held by Lux II and Lux II Sidecar, respectively; (d) 2,204,701; 378,378 and 92,455 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Lux II, Lux Ventures II Partners Fund I LLC (“Lux II Partners”) and Lux II Sidecar, respectively; (e) 2,270,840; 122,367 and 95,229 shares of common stock issuable upon conversion of Series D convertible preferred stock held by Lux II, Lux II Partners and Lux II Sidecar, respectively and (f) 119,221 and 4,999 of common stock issuable upon conversion of Series C convertible preferred stock issuable upon the exercise of warrants held by Lux II and Lux II Sidecar, respectively. Lux Venture Partners II, L.P. (“Lux Venture Partners”) is (i) the general partner of Lux II and Lux II Sidecar, and (ii) the manager of Lux II Partners. Lux Venture Associates II, LLC (“Lux Associates”) is the general partner of Lux Venture Partners and Lux Capital Management, LLC (“Lux Management”) is the sole member of Lux Venture Partners. Robert Paull, Joshua Wolfe and Peter Hebert are the individual managers of Lux Management (the “Individual Managers”). Lux Venture Partners, Lux Associates and Lux Management disclaim beneficial ownership of such shares, except to the extent of their pecuniary interest therein. Lux Management, as sole member, may be deemed to share voting and investment powers for the shares held by Lux II and Lux II Sidecar. As one of three individual managers, each of the Individual Managers disclaims beneficial ownership over the shares reported herein, and in all events disclaims beneficial ownership except to the extent of his pecuniary interest therein. The mailing address of the beneficial owner is 295 Madison Ave., 24th Floor, New York, NY 10017.
- (4) Consists of (a) 13,513,513 shares of common stock issuable upon conversion of Series C convertible preferred stock and (b) 4,340,831 shares of common stock issuable upon conversion of Series D convertible preferred stock. Steven E. Hall is a venture partner at Lilly Ventures Fund I LLC and has shared voting and shared investment power over such shares, and may be deemed the indirect beneficial owner of such shares. Dr. Hall disclaims beneficial ownership over such shares, except to the extent of any pecuniary interest therein. The mailing address of the beneficial owner is 115 W. Washington Street, Suite 1680-South, Indianapolis, IN 46204.
- (5) Consists of 12,048,192 shares of common stock issuable upon conversion of Series D convertible preferred stock held by CVF, LLC. Richard H. Robb, manager of CVF, LLC, exercises voting and investment power

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with respect to shares held by CVF, LLC. Mr. Robb disclaims beneficial ownership of all shares held by CVF, LLC except to the extent of his pecuniary interest therein. The mailing address of the beneficial owner is 222 N. LaSalle Street, Suite 2000, Chicago, IL 60601.

- (6) Consists of shares of common stock issuable upon the exercise of options exercisable within 60 days after January 31, 2014.
- (7) Consists of shares of common stock issuable upon the exercise of options exercisable within 60 days after January 31, 2014.
- (8) Consists of shares of common stock issuable upon the exercise of options exercisable within 60 days after January 31, 2014.
- (9) Consists of (a) the shares described in note (1) above, (b) 1,120,000 shares of common stock and (c) 250,000 shares of common stock issuable upon the exercise of options exercisable within 60 days after January 31, 2014.
- (10) Consists of the shares described in note (4) above. Dr. Hall is a venture partner at Lilly Ventures Fund I and has shared voting and shared investment power over such shares, and may be deemed the indirect beneficial owner of such shares. Dr. Hall disclaims beneficial ownership over such shares, except to the extent of any pecuniary interest therein.
- (11) Consists of (a) 103,093 shares of common stock issuable upon conversion of Series A convertible preferred stock; (b) 37,379 shares of common stock issuable upon conversion of Series B convertible preferred stock; (c) 85,135 shares of common stock issuable upon conversion of Series B-1 convertible preferred stock; (d) 118,954 shares of common stock issuable upon conversion of Series C convertible preferred stock; (e) 110,107 shares of common stock issuable upon conversion of Series D convertible preferred stock and (f) 5,522 shares of common stock issuable upon conversion of Series C convertible preferred stock issuable upon the exercise of warrants. William H. Rastetter holds the aforementioned shares jointly as community property with his wife.
- (12) Consists of shares of common stock.
- (13) Consists of (a) 275,000 shares of common stock and (b) 31,250 shares of common stock issuable upon the exercise of options exercisable within 60 days after January 31, 2014.
- (14) Includes 5,675,247 shares of common stock issuable upon the exercise of options exercisable within 60 days after January 31, 2014.

## DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our certificate of incorporation and bylaws are summaries and are qualified by reference to the certificate of incorporation and bylaws that will become effective upon the closing of this offering. Copies of these documents have been filed with the Securities and Exchange Commission as exhibits to our registration statement, of which this prospectus forms a part. The description of our common stock reflects changes to our capital structure that will occur upon the closing of this offering.

Following the closing of this offering, our authorized capital stock will consist of 120,000,000 shares of common stock, par value \$.0001 per share, and 5,000,000 shares of preferred stock, par value \$0.01 per share, all of which preferred stock will be undesignated.

As of January 31, 2014, we had issued and outstanding:

- 11,403,646 shares of our common stock, held by 41 stockholders of record;
- 2,500,000 shares of our Seed preferred stock that will automatically convert into 2,631,575 shares of our common stock upon the closing of this offering, held by 2 stockholders of record;
- 9,307,692 shares of our Series A preferred stock that will automatically convert into 12,474,262 shares of our common stock upon the closing of this offering, held by 8 stockholders of record;
- 3,562,000 shares of our Series B preferred stock that will automatically convert into 5,840,149 shares of our common stock upon the closing of this offering, held by 9 stockholders of record;
- 4,842,500 shares of our Series B-1 preferred stock that will automatically convert into 13,087,825 shares of our common stock upon the closing of this offering, held by 11 stockholders of record;
- 31,836,392 shares of our Series C preferred stock that will automatically convert into 31,836,392 shares of our common stock upon the closing of this offering, held by 15 stockholders of record; and
- 33,158,272 shares of our Series D preferred stock that will automatically convert into 33,158,272 shares of our common stock upon the closing of this offering, held by 16 stockholders of record.

Upon the closing of this offering, all of the outstanding shares of our preferred stock will automatically convert into an aggregate of 99,028,475 shares of our common stock.

### Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of any series of preferred stock that we may designate and issue in the future.

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately our net assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. Our outstanding shares of common stock are, and the shares offered by us in this offering will be, when issued and paid for, validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.



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### **Preferred Stock**

Under the terms of our certificate of incorporation that will become effective upon the closing of this offering, our board of directors is authorized to direct us to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Upon the closing of this offering, there will be no shares of preferred stock outstanding, and we have no present plans to issue any shares of preferred stock.

### **Stock Options**

As of January 31, 2014, options to purchase 17,687,568 shares of our common stock at a weighted-average exercise price of \$0.33 per share were outstanding.

### **Warrants**

As of January 31, 2014, we had outstanding:

- a warrant to purchase 15,000 shares of our Series B preferred stock, or the Series B warrant, at an exercise price of \$2.00 per share;
- warrants to purchase an aggregate of 878,370 shares of our Series C preferred stock, or the Series C warrants, at an exercise price of \$0.74 per share; and
- a warrant to purchase 963,856 shares of our Series D preferred stock, or the Series D warrant, at an exercise price of \$0.83 per share.

Upon the closing of this offering, and after giving effect to the automatic conversion of our preferred stock into common stock, (1) the Series B warrant will be exercisable, at the election of the holder, for an aggregate of 24,590 shares of our common stock, at an exercise price of \$2.00 per share, (2) the Series C warrants will be exercisable, at the election of the holders, for an aggregate of 878,370 shares of our common stock, at an exercise price of \$0.74 per share, and (3) the Series D warrant will be exercisable, at the election of the holder, for an aggregate of 963,856 shares of our common stock, at an exercise price of \$0.83 per share. All of the warrants provide for adjustments in the event of specified mergers, reorganizations, reclassifications, stock dividends, stock splits or other changes in our corporate structure. The Series B warrant expires on August 8, 2018, the Series C warrants expire on November 12, 2017 and the Series D warrant expires on December 6, 2021.

### **Convertible Promissory Notes**

In 2013, we issued and sold convertible promissory notes in an aggregate principal amount of \$8.8 million. We refer to these notes as our 2013 convertible notes. Our 2013 convertible notes bear interest at an annual rate of 7% and are payable after one year upon demand made by the holders of at least 60% of the aggregate principal amount outstanding under our 2013 convertible notes. Upon the closing of this offering, all principal and accrued interest under our 2013 convertible notes will convert into an aggregate of \_\_\_\_\_ shares of common stock, assuming an initial public offering price per share of \$ \_\_\_\_\_, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on \_\_\_\_\_, 2014. For more information on the 2013 convertible notes, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Indebtedness.”

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In 2014, we issued and sold 7% convertible promissory notes in an aggregate principal amount of \$8.5 million. We refer to these notes as our 2014 convertible notes. Our 2014 convertible notes bear interest at an annual rate of 7% and are payable after February 26, 2015 upon demand made by the holders of at least 60% of the aggregate principal amount outstanding under our 2014 convertible notes. Upon closing of this offering, all principal and accrued interest under our 2014 convertible notes, which convert at 77.5% of the initial public offering price, will convert into an aggregate of \_\_\_\_\_ shares of our common stock, assuming an initial public offering price per share of \$ \_\_\_\_\_, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that the offering closes on \_\_\_\_\_, 2014.

### **Delaware Anti-Takeover Law and Certain Charter and Bylaw Provisions**

#### ***Delaware law***

We are subject to Section 203 of the Delaware General Corporation Law. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a “business combination” with any “interested stockholder” for three years following the date that the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our board of directors or unless the business combination is approved in a prescribed manner. A “business combination” includes, among other things, a merger or consolidation involving us and the “interested stockholder” and the sale of more than 10% of our assets. In general, an “interested stockholder” is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person. The restrictions contained in Section 203 are not applicable to any of our existing stockholders that will own 15% or more of our outstanding voting stock upon the closing of this offering.

#### ***Staggered board; removal of directors***

Our certificate of incorporation and our bylaws divide our board of directors into three classes with staggered three-year terms. In addition, a director may be removed only for cause and only by the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in an annual election of directors. Any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

The classification of our board of directors and the limitations on the removal of directors and filling of vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

#### ***Super-majority voting***

The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation’s certificate of incorporation or by-laws, unless a corporation’s certificate of incorporation or by-laws, as the case may be, requires a greater percentage. Our by-laws may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least two-thirds of the votes that all our stockholders would be entitled to cast in an annual election of directors. In addition, the affirmative vote of the holders of at least 75% of the votes which all our stockholders would be entitled to cast in an election of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate of incorporation relating to the classification of our board of directors and the limitations on the removal of directors and filling of vacancies.

#### ***Stockholder action; special meeting of stockholders; advance notice requirements for stockholder proposals and director nominations***

Our certificate of incorporation provides that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of such stockholders and may not be

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effected by any consent in writing by such stockholders. Our certificate of incorporation and our bylaws also provide that, except as otherwise required by law, special meetings of our stockholders can only be called by our Chairman of the Board, our Chief Executive Officer or our board of directors. In addition, our bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors, or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions also could discourage a third party from making a tender offer for our common stock, because even if it acquired a majority of our outstanding voting stock, it would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting and not by written consent.

### ***Authorized but unissued shares***

The authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of the NASDAQ Global Market. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

### **Registration Rights**

We have entered into a second Series D convertible preferred stock purchase agreement, dated November 30, 2012, which we refer to as the second Series D purchase agreement, with the holders of our preferred stock, certain holders of our common stock, and the holders of the Series B warrant and the Series D warrant. Upon the closing of this offering, holders of a total of 110,813,327 shares of our common stock as of December 31, 2013, including shares issuable upon conversion of our preferred stock and upon exercise of the Series B warrant, the Series C warrants and the Series D warrant, will have the right to require us to register these shares under the Securities Act of 1933, as amended, or Securities Act, and/or to participate in future registrations of securities by us, under the circumstances described below. After registration pursuant to these rights, these shares will become freely tradable without restriction under the Securities Act. If not otherwise exercised, the rights described below will expire five years after the closing of this offering.

### ***Demand registration rights***

Beginning 180 days after the effective date of the registration statement of which this prospectus forms a part, subject to specified limitations set forth in the second Series D purchase agreement, at any time, the holders of 58% of the then-outstanding shares will have registration rights under the second Series D purchase agreement, which we refer to as registrable shares, may at any time demand in writing that we register all or a portion of the registrable shares under the Securities Act. We are not obligated to file a registration statement pursuant to this provision on more than two occasions, and we may defer the filing of a registration for a period of not more than 90 days if we determine in good faith that it would be seriously detrimental to us for a registration statement to be filed.

### ***Form S-3 registration rights***

In addition, at any time after we become eligible to file a registration statement on Form S-3, subject to specified limitations set forth in the second Series D purchase agreement, the holders of registrable shares may demand in writing that we register on Form S-3 all or a portion of the registrable shares so long as the total

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amount of registrable shares being registered has an aggregate price to the public of at least \$1 million. We are not obligated to file a Form S-3 pursuant to this provision on more than two occasions in any 12-month period, and we may defer the filing of the Form S-3 registration statement for a period of up to sixty days if in the good faith judgment of the underwriters it would be seriously detrimental to us for the Form S-3 registration to be filed.

### ***Incidental registration rights***

If, at any time after the closing of this offering, we propose to file a registration statement under the Securities Act, subject to specified exceptions, the holders of registrable shares will be entitled to notice of the registration and have the right to require us to register all or a portion of the registrable shares then held by them.

In the event that any registration in which the holders of registrable shares elect to participate pursuant to the second Series D purchase agreement is intended to be an underwritten public offering, we have agreed to enter into an underwriting agreement in usual and customary form. Holders of registrable securities must agree to any such underwriting agreement as a condition to participation in the offering.

In the event that any registration in which the holders of registrable shares participate pursuant to the second Series D purchase agreement is an underwritten public offering, we will use our best efforts to include the requested registrable shares to be included, but may be limited by market conditions.

### ***Expenses***

Pursuant to the second Series D purchase agreement, we are required to pay all registration expenses, including registration and filing fees, exchange listing fees, printing expenses and accounting fees and the fees and expenses of one counsel to represent the selling stockholders, other than any underwriting discounts and commissions, that are related to any demand, Form S-3 or incidental registration described above. The second Series D purchase agreement contains customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to them.

### **Transfer Agent and Registrar**

The transfer agent and registrar for our common stock will be

### **NASDAQ Global Market**

We have applied to have our common stock listed on the NASDAQ Global Market under the symbol "CERU."

## SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock, and a liquid trading market for our common stock may not develop or be sustained after this offering. Future sales of substantial amounts of common stock in the public market, including shares issued upon exercise of outstanding options, or the anticipation of these sales, could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through sales of equity securities. We have applied to have our common stock listed on The NASDAQ Global Market under the symbol "CERU."

Upon the closing of this offering, we will have outstanding an aggregate of \_\_\_\_\_ shares of common stock, assuming (1) the issuance of \_\_\_\_\_ shares of common stock offered by us in this offering, (2) the conversion of all outstanding shares of our preferred stock into 99,028,475 shares of our common stock upon the closing of this offering, (3) the conversion of all principal and accrued interest on our 2013 convertible notes upon the closing of this offering, assuming an initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus and that this offering closes on \_\_\_\_\_, 2014, and (4) the conversion of all principal and accrued interest outstanding on our 2014 convertible notes, which convert at 77.5% of the initial public offering price, upon the closing of this offering, assuming an initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and that this offering closes on \_\_\_\_\_, 2014, and assuming no exercise of options or warrants after January 31, 2014. Of the shares to be outstanding immediately after the closing of this offering, the \_\_\_\_\_ shares sold in this offering (assuming that the underwriters do not exercise their overallotment option) will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act, whose sales would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

The remaining \_\_\_\_\_ shares of common stock will be "restricted securities," as that term is defined in Rule 144 under the Securities Act and will further be subject to either restrictions on transfer under the lock-up agreements described below or restrictions on transfer for a period of 180 days from the effectiveness of the registration statement of which this prospectus forms a part under stock option agreements entered into between us and the holders of those shares. Following the expiration of these restrictions, these shares will become eligible for public sale if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below.

In addition, of the 17,687,568 shares of our common stock that were subject to stock options outstanding as of January 31, 2014, options to purchase 8,952,718 shares of common stock were vested and exercisable as of January 31, 2014. Upon exercise, these shares will be eligible for sale subject to the lock-up agreements and securities law restrictions described below. Of the 1,866,816 shares of common stock subject to our outstanding warrants as of December 31, 2013, 1,866,816 were exercisable as of December 31, 2013 and upon issuance these shares will be eligible for sale, subject to the lock-up agreements and securities laws described below.

### Lock-Up Agreements

We and each of our directors and executive officers and holders of substantially all of our outstanding capital stock, who collectively own \_\_\_\_\_ of the shares of our common stock, based on shares outstanding as of December 31, 2013, have agreed that, without the prior written consent of Leerink Partners LLC, on behalf of the underwriters, we and they will not, subject to limited exceptions, during the period ending 180 days after the date of this prospectus, subject to extension in specified circumstances:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for common stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock,

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whether any transaction described above is to be settled by delivery of our common stock or such other securities, in cash or otherwise.

The lock-up restrictions, specified exceptions and the circumstances under which the lock-up period may be extended are described in more detail in the section of this prospectus entitled “Underwriting.”

Upon the expiration of the applicable lock-up periods, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

### **Rule 144**

#### ***Affiliate resales of restricted securities***

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours, or who was an affiliate at any time during the 90 days before a sale, who has beneficially owned shares of our common stock for at least six months would be entitled to sell in “broker’s transactions” or certain “riskless principal transactions” or to market makers, a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately \_\_\_\_\_ shares immediately after this offering, assuming no exercise of the underwriter’s option to purchase additional shares; or
- the average weekly trading volume in our common stock on the NASDAQ Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Affiliate resales under Rule 144 are also subject to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price in excess of \$50,000, the seller must file a notice on Form 144 with the Securities and Exchange Commission and NASDAQ concurrently with either the placing of a sale order with the broker or the execution directly with a market maker.

#### ***Non-affiliate resales of restricted securities***

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time of sale, and has not been an affiliate at any time during the three months preceding a sale, and who has beneficially owned shares of our common stock for at least six months but less than a year, is entitled to sell such shares subject only to the availability of current public information about us. If such person has held our shares for at least one year, such person can resell under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company requirement and the current public information requirement.

Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

### **Rule 701**

In general, under Rule 701, any of an issuer’s employees, directors, officers, consultants or advisors who purchases shares from the issuer in connection with a compensatory stock or option plan or other written agreement before the effective date of a registration statement under the Securities Act is entitled to sell such shares 90 days after such effective date in reliance on Rule 144. An affiliate of the issuer can resell shares in reliance on Rule 144 without having to comply with the holding period requirement, and non-affiliates of the issuer can resell shares in reliance on Rule 144 without having to comply with the current public information and holding period requirements.

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The Securities and Exchange Commission has indicated that Rule 701 will apply to typical stock options granted by an issuer before it becomes subject to the reporting requirements of the Exchange Act, along with the shares acquired upon exercise of such options, including exercises after an issuer becomes subject to the reporting requirements of the Exchange Act.

### **Equity Plans**

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock subject to outstanding stock options and common stock issued or issuable under our stock plans. We expect to file the registration statement covering shares offered pursuant to our stock plans shortly after the date of this prospectus, permitting the resale of such shares by nonaffiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market, subject to compliance with the resale provisions of Rule 144.

### **Registration Rights**

Upon the closing of this offering, the holders of 110,813,327 shares of common stock or their transferees will be entitled to various rights with respect to the registration of these shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. See “Description of Capital Stock—Registration Rights” for additional information. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreement.

**MATERIAL U.S. FEDERAL TAX CONSIDERATIONS FOR  
NON-U.S. HOLDERS OF COMMON STOCK**

The following is a general discussion of material U.S. federal income and estate tax considerations relating to ownership and disposition of our common stock by a non-U.S. holder. For purposes of this discussion, the term “non-U.S. holder” means a beneficial owner of our common stock that is not, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States or of any political subdivision of the United States;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or if the trust has a valid election to be treated as a U.S. person under applicable U.S. Treasury regulations.

An individual may be treated as a resident instead of a nonresident of the United States in any calendar year for U.S. federal income tax purposes if the individual was present in the United States for at least 31 days in that calendar year and for an aggregate of at least 183 days during the three-year period ending with the current calendar year. For purposes of this calculation, all of the days present in the current year, one-third of the days present in the immediately preceding year and one-sixth of the days present in the second preceding year are counted. Residents are taxed for U.S. federal income tax purposes as if they were U.S. citizens.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended, which we refer to as the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus and all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change could alter the tax consequences to non-U.S. holders described in this prospectus. In addition, the Internal Revenue Service, or the IRS, could challenge one or more of the tax consequences described in this prospectus.

We assume in this discussion that each non-U.S. holder holds shares of our common stock as a capital asset (generally, property held for investment). This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder’s individual circumstances nor does it address any aspects of U.S. state, local or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

- insurance companies;
- tax-exempt organizations;
- financial institutions;
- brokers or dealers in securities;
- regulated investment companies;
- pension plans;
- controlled foreign corporations;
- passive foreign investment companies;
- owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment; and
- certain U.S. expatriates.



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In addition, this discussion does not address the tax treatment of partnerships or persons who hold their common stock through partnerships or other entities which are transparent for U.S. federal income tax purposes. A partner in a partnership or other transparent entity that will hold our common stock should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of our common stock through a partnership or other transparent entity, as applicable.

**Prospective investors should consult their own tax advisors regarding the U.S. federal, state, local and non-U.S. income and other tax considerations of acquiring, holding and disposing of our common stock.**

### **Dividends**

As discussed in the “Dividend Policy” section of this prospectus, we do not expect to pay dividends in the foreseeable future. If we pay distributions on our common stock, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder’s investment, up to such holder’s tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading “Gain on Disposition of Common Stock.”

Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder’s country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States, and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder provides a valid IRS Form W-8ECI (or an acceptable substitute form). However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder’s country of residence.

A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder’s country of residence generally will be required to provide a properly executed IRS Form W-8BEN (or successor form) and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS.

### **Gain on Disposition of Common Stock**

A non-U.S. holder generally will not be subject to U.S. federal income tax on gain recognized on a disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder’s conduct of a trade or business in the United States, and, if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment maintained by the non-U.S. holder in the United States; in these cases, the non-U.S. holder will be taxed on a net income basis at the regular graduated rates and in the manner applicable to U.S. persons, and, if the non-U.S. holder is a foreign corporation, an additional branch profits tax at a rate of 30%, or a lower rate as may be specified by an applicable income tax treaty, may also apply;

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- the non-U.S. holder is an individual present in the United States for 183 days or more in the taxable year of the disposition and some other requirements are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the net gain derived from the disposition; or
- we are or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation" unless our common stock is regularly traded on an established securities market and the non-U.S. holder held no more than 5% of our outstanding common stock, directly or indirectly, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. Generally, a corporation is a "U.S. real property holding corporation" if the fair market value of its "U.S. real property interests" equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not currently, and we do not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes.

### **Information Reporting and Backup Withholding Tax**

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate, currently 28%, with respect to dividends on our common stock. Generally, a holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN or otherwise meets documentary evidence requirements for establishing that it is a non-U.S. holder, or otherwise establishes an exemption.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

### **Federal Estate Tax**

Common stock owned or treated as owned by an individual who is a non-U.S. holder (as specially defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes and, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

### **Recently Enacted Legislation Relating to Foreign Accounts**

The Foreign Account Tax Compliance Act, or FATCA, was enacted in March 2010. Generally, FATCA imposes a 30% withholding tax on dividends of, and gross proceeds from the sale or disposition, of our common

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stock if paid to a foreign entity unless (i) if the foreign entity is a “foreign financial institution,” the foreign entity undertakes certain due diligence, reporting, withholding, and certain certification obligations, (ii) if the foreign entity is not a “foreign financial institution,” the foreign entity identifies certain of its U.S. investors, or (iii) the foreign entity is otherwise exempt under FATCA.

Although this legislation is effective with regards to amounts paid after December 31, 2012, (1) under IRS Notice 2013-43 issued on July 7, 2013, withholding under FATCA will only apply to payments of dividends on our common stock made after June 30, 2014 and (2), under final regulations issued by the U.S. Department of Treasury on January 17, 2013, to payments of gross proceeds from a sale or other disposition of our common stock made after December 31, 2016. Under certain circumstances, a non-US holder may be eligible for refunds or credits of the tax. Non-U.S. holders should consult their own tax advisors regarding the possible implications of this legislation on their investment in our common stock.

**The preceding discussion of material U.S. federal tax considerations is for general information only. It is not tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local and non- U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed changes in applicable laws.**

## UNDERWRITING

Leerink Partners LLC is acting as representative of each of the underwriters named below. Subject to the terms and conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of common stock set forth opposite its name below.

<u>Underwriter</u>	<u>Number of Shares</u>
Leerink Partners LLC	
Canaccord Genuity Inc.	
JMP Securities LLC	
Wedbush Securities Inc.	
Total	

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

### Commissions and Discounts

The representative has advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover of this prospectus and to dealers at that price less a concession not in excess of \$        per share. After the initial offering, the public offering price, concession or any other term of the offering may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares of our common stock.

	<u>Per Share</u>	<u>Without Option</u>	<u>With Option</u>
Public offering price	\$	\$	\$
Underwriting discount	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

The expenses of the offering, not including the underwriting discount, are estimated at \$        million and are payable by us. We have agreed to reimburse the underwriters for all expenses related to the clearing of this offering with the Financial Industry Regulatory Authority and the qualification of our common stock under state securities laws.

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### **Option to Purchase Additional Shares**

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus, to purchase up to \_\_\_\_\_ additional shares at the public offering price, less the underwriting discount. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the underwriting agreement, to purchase a number of additional shares proportionate to that underwriter's initial amount reflected in the above table.

### **Reserved Shares**

At our request, the underwriters have reserved for sale, at the initial public offering price, up to \_\_\_\_\_ of the shares offered by this prospectus for sale to our employees and other parties. If these persons purchase reserved shares, it will reduce the number of shares available for sale to the general public. Any reserved shares that are not so purchased will be offered by the underwriters to the general public on the same terms as the other shares offered by this prospectus.

### **No Sales of Similar Securities**

We, our executive officers and directors and all of our other existing security holders have agreed not to sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock, for 180 days after the date of this prospectus without first obtaining the written consent of Leerink Partners LLC. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

- offer, pledge, sell or contract to sell any common stock;
- sell any option or contract to purchase any common stock;
- purchase any option or contract to sell any common stock;
- grant any option, right or warrant for the sale of any common stock;
- otherwise dispose of or transfer any common stock;
- request or demand that we file a registration statement related to the common stock; or
- enter into any swap or other agreement or any transaction that transfers, in whole or in part, the economic consequence of ownership of any common stock, whether any such swap, agreement or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition.

### **NASDAQ Global Market Listing**

We have applied to list our common stock on the NASDAQ Global Market, subject to notice of issuance, under the symbol "CERU."

Before this offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the representative. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price are:

- the valuation multiples of publicly traded companies that the representative believes to be comparable to us;
- our financial information;
- the history of, and the prospects for, our company and the industry in which we compete;

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- an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenues;
- the present state of our development; and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

The underwriters do not expect to sell more than 5% of the shares in the aggregate to accounts over which they exercise discretionary authority.

### **Price Stabilization, Short Positions and Penalty Bids**

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representative may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option described above. The underwriters may close out any covered short position by either exercising their option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option granted to them. "Naked" short sales are sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the closing of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representative has repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on the NASDAQ Global Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representative will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

### **Electronic Distribution**

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

## **Other Relationships**

Some of the underwriters and their affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They may in the future receive customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

## **Notice to Prospective Investors in the European Economic Area**

In relation to each Member State of the European Economic Area (each, a “Relevant Member State”), no offer of shares may be made to the public in that Relevant Member State other than:

- A. to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- B. to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representative; or
- C. in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares shall require the Company or the representative to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed that it is a “qualified investor” within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive. In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the representative has been obtained to each such proposed offer or resale.

The company, the representative and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

This prospectus has been prepared on the basis that any offer of shares in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of shares. Accordingly any person making or intending to make an offer in that Relevant Member State of shares which are the subject of the offering contemplated in this prospectus may only do so in circumstances in which no obligation arises for the company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive in relation to such offer. Neither the company nor the underwriters have authorized, nor do they authorize, the making of any offer of shares in circumstances in which an obligation arises for the company or the underwriters to publish a prospectus for such offer.

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For the purpose of the above provisions, the expression “an offer to the public” in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in the Relevant Member State by any measure implementing the Prospectus Directive in the Relevant Member State and the expression “Prospectus Directive” means Directive 2003/71/EC (including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member States) and includes any relevant implementing measure in the Relevant Member State and the expression “2010 PD Amending Directive” means Directive 2010/73/EU.



## LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP, Boston, Massachusetts. Ropes & Gray LLP, Boston, Massachusetts, has acted as counsel for the underwriters in connection with certain legal matters related to this offering.

## EXPERTS

The consolidated financial statements as of December 31, 2012 and 2013, and for the years then ended, included in this prospectus, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report appearing herein and elsewhere in the registration statement (which report expresses an unqualified opinion on the consolidated financial statements and includes an explanatory paragraph referring to our ability to continue as a going concern). Such consolidated financial statements have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of our common stock we are offering to sell. This prospectus, which constitutes part of the registration statement, does not include all of the information contained in the registration statement and the exhibits, schedules and amendments to the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and to the exhibits and schedules to the registration statement. Statements contained in this prospectus about the contents of any contract, agreement or other document are not necessarily complete, and, in each instance, we refer you to the copy of the contract, agreement or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference to such contract, agreement or document.

You may read and copy the registration statement of which this prospectus is a part at the SEC's public reference room, which is located at 100 F Street, N.E., Room 1580, Washington, DC 20549. You can request copies of the registration statement by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC's public reference room. In addition, the SEC maintains an Internet website, which is located at [www.sec.gov](http://www.sec.gov), that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement of which this prospectus is a part at the SEC's Internet website.

Upon closing of this offering, we will be subject to the informational and periodic reporting requirements of the Exchange Act. We will fulfill our obligations with respect to such requirements by filing periodic reports and other information with the SEC. We intend to furnish our stockholders with annual reports containing consolidated financial statements certified by an independent registered public accounting firm. We also maintain a website at [www.ceruleanrx.com](http://www.ceruleanrx.com). The information contained in, or which can be accessed through, our website does not constitute a part of this prospectus.

**CERULEAN PHARMA INC.**  
**(A Development Stage Company)**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of  
Cerulean Pharma Inc.  
Cambridge, Massachusetts

We have audited the accompanying consolidated balance sheets of Cerulean Pharma Inc. (a development stage company) and subsidiary (the "Company") as of December 31, 2012 and 2013, and the related consolidated statements of operations, redeemable convertible preferred stock and stockholders' deficit, and cash flows for the years then ended and for the period from November 28, 2005 (date of incorporation) to December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Cerulean Pharma Inc. and subsidiary as of December 31, 2012 and 2013, and the results of their consolidated operations and their cash flows for the years then ended and for the period November 28, 2005 (date of incorporation) to December 31, 2013, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company's recurring losses from operations, working capital deficiency and accumulated deficit raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1 to the consolidated financial statements. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Deloitte & Touche LLP

Boston, Massachusetts  
March 7, 2014

[Table of Contents](#)**CERULEAN PHARMA INC.**  
**(A Development Stage Company)****CONSOLIDATED BALANCE SHEETS**

	<u>December 31,</u>		<u>Pro Forma</u>
	<u>2012</u>	<u>2013</u>	<u>December 31,</u>
			<u>2013</u>
			<u>(unaudited)</u>
<b>ASSETS</b>			
Current assets:			
Cash and cash equivalents	\$ 16,707,000	\$ 5,488,000	\$
Accounts receivable, prepaid expenses, and other current assets	357,000	959,000	
Total current assets	<u>17,064,000</u>	<u>6,447,000</u>	
Property and equipment — Net	442,000	245,000	
Other assets	155,000	135,000	
Total	<u>\$ 17,661,000</u>	<u>\$ 6,827,000</u>	<u>\$</u>
<b>LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT</b>			
Current liabilities:			
Current portion of loan payable	\$ 2,869,000	\$ 3,134,000	\$
Convertible promissory notes payable to shareholders	—	8,824,000	
Accounts payable	900,000	914,000	
Accrued expenses	2,741,000	2,274,000	
Other liabilities	14,000	—	
Total current liabilities	<u>6,524,000</u>	<u>15,146,000</u>	
Long-term liabilities:			
Loan payable — net of current portion	6,258,000	3,124,000	
Preferred stock warrant liability	1,130,000	928,000	
Noncurrent accrued interest	37,000	391,000	
Other	—	12,000	
Total long-term liabilities	<u>7,425,000</u>	<u>4,455,000</u>	
Redeemable convertible preferred stock (Note 8)	<u>83,751,000</u>	<u>81,525,000</u>	
Commitments (Note 13)			
Stockholders' deficit:			
Common stock, \$0.0001 par value;			
132,000,000 shares and 132,000,000 shares designated, 8,849,653 and 11,397,068 shares			
issued and outstanding at December 31, 2012 and 2013, respectively	1,000	1,000	
Additional paid-in capital	1,256,000	4,139,000	
Deficit accumulated during the development stage	(81,296,000)	(98,439,000)	
Total stockholders' deficit	<u>(80,039,000)</u>	<u>(94,299,000)</u>	
Total	<u>\$ 17,661,000</u>	<u>\$ 6,827,000</u>	<u>\$</u>

See notes to consolidated financial statements.

[Table of Contents](#)**CERULEAN PHARMA INC.**  
**(A Development Stage Company)****CONSOLIDATED STATEMENTS OF OPERATIONS**

	<u>Years Ended December 31,</u>		<u>Period from</u>
	<u>2012</u>	<u>2013</u>	<u>November 28, 2005</u> <u>(Date of Incorporation)</u> <u>to December 31, 2013</u>
Revenue	\$ 625,000	\$ 6,000	\$ 1,669,000
Operating expenses:			
Research and development	15,807,000	9,700,000	67,042,000
General and administrative	6,393,000	6,166,000	31,570,000
Total operating expenses	<u>22,200,000</u>	<u>15,866,000</u>	<u>98,612,000</u>
Other income (expense):			
Interest income	2,000	2,000	684,000
Interest expense	(567,000)	(1,487,000)	(2,395,000)
Decrease in value of preferred stock warrant liability	39,000	202,000	215,000
Total other income (expense) — net	<u>(526,000)</u>	<u>(1,283,000)</u>	<u>(1,496,000)</u>
Net loss	<u>(22,101,000)</u>	<u>(17,143,000)</u>	<u>(98,439,000)</u>
Accretion of redeemable convertible preferred stock	(73,000)	—	(694,000)
Net loss attributable to common stockholders	<u><u>\$ (22,174,000)</u></u>	<u><u>\$ (17,143,000)</u></u>	<u><u>\$ (99,133,000)</u></u>
Net loss per share attributable to common stockholders:			
Basic and diluted	<u><u>\$ (2.51)</u></u>	<u><u>\$ (1.73)</u></u>	<u><u>\$ (11.36)</u></u>
Weighted-average common shares outstanding:			
Basic and diluted	<u>8,839,998</u>	<u>9,927,850</u>	<u>8,726,883</u>
Pro forma net loss per share attributable to common stockholders (unaudited):			
Basic and diluted		<u><u>\$ (0.15)</u></u>	
Pro forma weighted-average common shares outstanding (unaudited):			
Basic and diluted		<u>114,351,117</u>	

See notes to consolidated financial statements.

**CERULEAN PHARMA INC.**  
**(A Development Stage Company)**

**CONSOLIDATED STATEMENT OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT**

	Redeemable Convertible Preferred Stock \$0.01 Par Value		Common Stock \$0.0001 Par Value		Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total
	Shares	Amount	Shares	Amount			
OPENING BALANCE — November 28, 2005 (date of incorporation)	—	\$ —	—	\$ —	\$ —	\$ —	\$ —
BALANCE — December 31, 2005	—	—	—	—	—	—	—
Issuance of founders' shares			7,500,000	1,000			1,000
Issuance of common stock in accordance with a Patent License Agreement			526,314		142,000		142,000
Sale of Seed Convertible Preferred Stock at \$0.80 per share, net of issuance cost of \$83,000	2,500,000	1,917,000					
Net loss						(733,000)	(733,000)
BALANCE — December 31, 2006	2,500,000	1,917,000	8,026,314	1,000	142,000	(733,000)	(590,000)
Issuance of common stock in accordance with a Patent License Agreement			187,247		60,000		60,000
Vesting of restricted common stock			112,500		30,000		30,000
Sale of Series A Convertible Preferred Stock at \$1.30 per share, net of issuance costs of \$56,000	9,307,692	12,043,000					
Sale of Series B Convertible Preferred Stock at \$2.00 per share, net of issuance costs of \$45,000	4,062,500	8,080,000					
Stock-based compensation					28,000		28,000
Net loss						(5,238,000)	(5,238,000)
BALANCE — December 31, 2007	15,870,192	22,040,000	8,326,061	1,000	260,000	(5,971,000)	(5,710,000)
Exercise of stock options			50,000		13,000		13,000
Vesting of restricted common stock			112,500		49,000		49,000
Stock-based compensation					57,000		57,000
Net loss						(8,731,000)	(8,731,000)
BALANCE — December 31, 2008	15,870,192	22,040,000	8,488,561	1,000	379,000	(14,702,000)	(14,322,000)
Exercise of stock options			7,750		2,000		2,000
Vesting of restricted common stock			112,500		46,000		46,000
Sale of Series B-1 Convertible Preferred Stock at \$2.00 per share, net of issuance costs of \$75,000	5,000,000	9,925,000					
Stock-based compensation					191,000		191,000
Net loss						(12,700,000)	(12,700,000)
BALANCE — December 31, 2009	20,870,192	31,965,000	8,608,811	1,000	618,000	(27,402,000)	(26,783,000)
Exercise of stock options			14,271		5,000		5,000
Vesting of restricted common stock			112,500		26,000		26,000
Sale of Series C Convertible Preferred Stock at \$0.74 per share, net of issuance costs of \$264,000	13,276,114	9,560,000					
Conversion of shareholder notes and accrued interest into Series C Convertible Preferred Stock	9,021,175	6,203,000					
Stock-based compensation					211,000		211,000
Net loss						(12,851,000)	(12,851,000)

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	Redeemable Convertible Preferred Stock \$0.01 Par Value		Common Stock \$0.0001 Par Value		Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total
	Shares	Amount	Shares	Amount			
BALANCE — December 31, 2010	43,167,481	47,728,000	8,735,582	1,000	860,000	(40,253,000)	(39,392,000)
Exercise of stock options			100,898		34,000		34,000
Sale of Series C Convertible Preferred Stock at \$0.74 per share, net of issuance costs of \$22,000	10,135,128	7,478,000					
Sale of Series D Convertible Preferred Stock at \$0.83 per share, net of issuance costs of \$76,000	18,072,287	14,924,000					
Stock-based compensation					524,000		524,000
Accretion of issuance costs to redemption value		621,000			(621,000)		(621,000)
Net loss						(18,942,000)	(18,942,000)
BALANCE — December 31, 2011	71,374,896	70,751,000	8,836,480	1,000	797,000	(59,195,000)	(58,397,000)
Exercise of stock options			13,173		3,000		3,000
Sale of Series D Convertible Preferred Stock at \$0.83 per share, net of issuance costs of \$73,000	15,662,650	12,927,000					
Stock-based compensation					529,000		529,000
Accretion of issuance costs to redemption value		73,000			(73,000)		(73,000)
Net loss						(22,101,000)	(22,101,000)
BALANCE — December 31, 2012	87,037,546	83,751,000	8,849,653	1,000	1,256,000	(81,296,000)	(80,039,000)
Exercise of stock options			129,379		35,000		35,000
Stock-based compensation					622,000		622,000
Conversion of preferred stock into common stock	(1,830,190)	(2,226,000)	2,418,036		2,226,000		2,226,000
Net loss						(17,143,000)	(17,143,000)
BALANCE — December 31, 2013	<u>85,207,356</u>	<u>\$ 81,525,000</u>	<u>11,397,068</u>	<u>\$ 1,000</u>	<u>\$4,139,000</u>	<u>\$(98,439,000)</u>	<u>\$(94,299,000)</u>

See notes to consolidated financial statements.

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**CERULEAN PHARMA INC.**  
**(A Development Stage Company)**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	<u>Years Ended December 31,</u>		<u>Period from</u>
	<u>2012</u>	<u>2013</u>	<u>November 28, 2005</u> <u>(Date of Incorporation)</u> <u>to December 31, 2013</u>
Cash flows from operating activities:			
Net loss	\$(22,101,000)	\$(17,143,000)	\$ (98,439,000)
Adjustments to reconcile net loss to net cash used in operating activities:			
Stock-based compensation	529,000	622,000	2,313,000
Noncash research and development expense	—	—	202,000
Noncash rent expense	(68,000)	(1,000)	13,000
Change in carrying value of preferred stock warrant liability	(39,000)	(202,000)	(215,000)
Depreciation and amortization	346,000	197,000	1,929,000
Loss on disposal of property and equipment	2,000	7,000	56,000
Noncash interest expense	61,000	588,000	868,000
Changes in operating assets and liabilities:			
Accounts receivable, prepaid expenses and other current assets	(61,000)	(229,000)	(567,000)
Accounts payable	(163,000)	14,000	914,000
Accrued expenses	489,000	(467,000)	2,274,000
Net cash used in operating activities	<u>(21,005,000)</u>	<u>(16,614,000)</u>	<u>(90,652,000)</u>
Cash flows from investing activities:			
Purchases of property and equipment	(180,000)	(7,000)	(2,220,000)
Proceeds from sale of property and equipment	—	—	4,000
Increase in restricted cash	—	—	(117,000)
Net cash used in investing activities	<u>(180,000)</u>	<u>(7,000)</u>	<u>(2,333,000)</u>
Cash flows from financing activities:			
Payments on capital lease	(3,000)	—	(15,000)
Proceeds from sale of common stock	3,000	35,000	93,000
Proceeds from issuance of convertible promissory notes	—	8,824,000	15,824,000
Proceeds from loans payable	10,000,000	—	10,695,000
Payments on loans payable	(376,000)	(3,084,000)	(4,025,000)
Cash paid for debt issuance costs	(4,000)	(373,000)	(432,000)
Proceeds from sale of redeemable convertible preferred stock — net of issuance costs	12,927,000	—	76,333,000
Net cash provided by financing activities	<u>22,547,000</u>	<u>5,402,000</u>	<u>98,473,000</u>
Net increase (decrease) in cash and cash equivalents	1,362,000	(11,219,000)	5,488,000
Cash and cash equivalents — Beginning of period	15,345,000	16,707,000	—
Cash and cash equivalents — End of period	<u>\$ 16,707,000</u>	<u>\$ 5,488,000</u>	<u>\$ 5,488,000</u>
Supplemental disclosures of noncash investing and financing activities:			
Conversion of redeemable convertible preferred stock into common stock	<u>\$ —</u>	<u>\$ 2,226,000</u>	<u>\$ 2,226,000</u>
Conversion of accrued interest and convertible notes payable to Seed Redeemable Convertible Preferred Stock	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 522,000</u>
Conversion of accrued interest and convertible notes payable to Series C Redeemable Convertible Preferred Stock	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 6,676,000</u>
Property and equipment acquired under capital lease	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 15,000</u>
Accretion of redeemable convertible preferred stock to redemption value	<u>\$ 73,000</u>	<u>\$ —</u>	<u>\$ 694,000</u>
Fair value of preferred stock warrants issued in connection with debt	<u>\$ 360,000</u>	<u>\$ —</u>	<u>\$ 1,143,000</u>
Supplemental cash flow information — Interest paid	<u>\$ 507,000</u>	<u>\$ 664,000</u>	<u>\$ 1,293,000</u>

See notes to the consolidated financial statements.



**CERULEAN PHARMA INC.**  
**(A Development Stage Company)**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. NATURE OF BUSINESS AND OPERATIONS**

**Nature of Business** — Cerulean Pharma Inc. (the “Company”) was incorporated on November 28, 2005 as a Delaware corporation and is located in Cambridge, Massachusetts. The Company was formed to develop novel, nanotechnology-based therapeutics in the areas of oncology and other diseases. During 2013, the Company formed a wholly-owned subsidiary, Cerulean Pharma Australia Pty Ltd as an Australian-based proprietary limited company. The activity in the subsidiary to date has been insignificant.

**Basis of Presentation and Going Concern** — The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities and commitments in the normal course of business. Since its date of incorporation, the Company has incurred net losses and negative cash flows from operations, and at December 31, 2013, has an accumulated deficit of approximately \$98.4 million and a working capital deficiency of approximately \$8.7 million. The Company has financed its operations to date almost exclusively from preferred stock and debt financings. In 2014, the Company raised approximately \$8.5 million through the issuance of convertible promissory notes to certain existing investors and a new investor (see Note 18). Management believes that its current cash and cash equivalents with the additional financing received in 2014, are sufficient to fund the Company’s operations through June 2014. In addition, the Company is subject to a number of risks common to emerging companies in the life science industry. Principal among these risks are: the Company’s need to obtain additional financing necessary to fund future operations; uncertainty of regulatory approval and market acceptance of the Company’s products; the Company’s compliance with government regulations and approval requirements; uncertainties of the product innovations by the Company’s competitors; and the Company’s protection of proprietary technology.

The Company will continue to require substantial funds to continue its research and development activities, including pre-clinical studies and clinical trials of its product candidates, and to commence sales and marketing efforts, if the U.S. Food and Drug Administration or other regulatory approvals are obtained. Management’s plans in order to meet its short-term and longer term operating cash flow requirements include obtaining additional funding from its current investors and a planned initial public offering (“IPO”) of its common stock. The Company confidentially submitted an initial registration statement with the Securities and Exchange Commission to begin the IPO process in January 2014. In February 2014, the Company issued convertible promissory notes to the existing investors totaling \$6.0 million and in March 2014, the Company issued a convertible promissory note in the amount of \$2.5 million to a new investor (see Note 18). Management is also actively pursuing financial and strategic alternatives, including collaboration agreements with strategic partners.

The uncertainties associated with the Company’s ability to (1) obtain additional debt or equity financing on terms that are favorable to the Company, (2) enter into collaborative agreements with strategic partners, and (3) succeed in its future operations, raise substantial doubt about the Company’s ability to continue as a going concern. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or amounts of liabilities that might be necessary should the Company be unable to continue its operations. If the Company is not able to obtain the required funding in the near future or is not able to obtain funding on terms that are favorable to the Company, it will have a material adverse effect on its operations and strategic development plan for future growth. If the Company cannot successfully raise additional funding and implement its strategic development plan, then its liquidity, financial condition and business prospects will be materially and adversely affected, and the Company may have to cease operations.

## 2. SIGNIFICANT ACCOUNTING POLICIES

**Use of Estimates** — The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of costs and expenses during the reporting period. Significant estimates relied upon in preparing these financial statements include the fair value of common stock, the fair value of preferred stock warrants, recoverability of the Company's net deferred tax assets, and related valuation allowance and certain accruals. Actual results could differ materially from those estimates.

**Principles of Consolidation** — The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary. All intercompany accounts and transactions have been eliminated.

**Unaudited Pro Forma Information** — The unaudited pro forma consolidated balance sheet information as of December 31, 2013 reflects the automatic conversion of redeemable convertible stock (see Note 8) and convertible notes to shareholders (see Note 6) into shares of common stock immediately prior to the closing of an initial public offering for a total of \_\_\_\_\_ shares of common stock. In addition, the unaudited pro forma consolidated balance sheet information as of December 31, 2013 reflects the conversion of preferred stock warrants into common stock warrants. For purposes of pro forma basic and diluted loss per share attributable to common stockholders, all shares of redeemable convertible preferred stock and convertible notes have been treated as though they had been converted to common stock in all periods in which such shares were outstanding. Accordingly, the pro forma basic and diluted loss per share attributable to common stockholders does not include the effects of the accretion of redeemable convertible preferred stock to redemption value and the interest expense on the convertible notes payable.

**Segment Information** — Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker in making decisions regarding resource allocation and assessing performance. The Company views its operations and manages its business in one operating segment.

**Cash and Cash Equivalents** — Cash equivalents include all highly liquid investments maturing within 90 days from the date of purchase and consist primarily of money market funds.

**Concentrations of Credit Risk** — Financial instruments that subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents. Substantially all of the Company's cash and cash equivalents are held at one financial institution that management believes to be of high-credit quality. Deposits with this financial institution may exceed the amount of insurance provided on such deposits; however these deposits may be redeemed upon demand and, therefore, bear minimal risk.

**Restricted Cash** — At December 31, 2012 and 2013, the Company has restricted cash of \$117,000 included in other assets representing a letter of credit for the Company's facility lease that was scheduled to expire in February 2013. The letter of credit is secured by certificates of deposit that renew monthly. The lease was extended through February 2016 and the letter of credit remained intact.

**Deferred Issuance Costs** — Deferred issuance costs, which primarily consist of direct incremental legal and accounting fees relating to the Company's planned IPO, are capitalized. The deferred issuance costs will be offset against IPO proceeds upon the consummation of the offering. In the event the offering is terminated, deferred offering costs will be expensed. As of December 31, 2013, the Company had capitalized \$680,000 of deferred IPO costs, which are included in other current assets on the balance sheet. No amount was deferred as of December 31, 2012.

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**Property and Equipment** — Property and equipment are recorded at cost and depreciated over their estimated useful lives using the straight-line method. Repairs and maintenance costs are expensed as incurred, whereas major improvements are capitalized as additions to property and equipment.

Depreciation is provided using the straight-line method over the following estimated useful lives:

Laboratory equipment	5 years
Computer equipment and purchased software	3 years
Office furniture and equipment	5 years
Leasehold improvements	Lesser of useful life or remaining lease term

**Impairment of Long-Lived Assets** — Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. When such events occur, the Company compares the carrying amounts of the assets to their undiscounted expected future cash flows. If this comparison indicates that there is impairment, the amount of impairment is calculated as the difference between the carrying value and fair value. For the years ended December 31, 2012 and 2013, the Company has not recorded an impairment charge for its long-lived assets.

**Revenue Recognition** — The Company's revenue to date has been insignificant and has been generated from short term research agreements with pharmaceutical companies and federal grants. There have been no multiple element arrangements. Revenue is recognized when four basic criteria are met: (1) persuasive evidence of an arrangement exists, (2) delivery has occurred or services have been rendered, (3) the fee is fixed or determinable, and (4) collectability is reasonably assured. Accordingly the Company has recognized revenue under its agreements as the services were performed.

**Research and Development Costs** — Research and development expenses consist of expenses incurred in performing research and development activities, including compensation and benefits for full-time research and development employees, an allocation of facilities expenses, overhead expenses, manufacturing process-development and scale-up activities, clinical trial and related clinical manufacturing expenses, fees paid to clinical research organizations, or CROs, and investigative sites, payments to universities under the Company's license agreements and other outside expenses. In the early phases of development, the Company's research and development costs are often devoted to expanding its product platform and are not necessarily allocable to a specific target. Research and development costs are expensed as incurred. Nonrefundable advanced payments, if any, for goods and services used in research and development are recognized as an expense as the related goods are delivered or services are performed.

**Preferred Stock Warrant Liability** — Freestanding warrants related to shares that are redeemable or contingently redeemable are classified as a liability on the Company's balance sheets. The Company uses the Black-Scholes option-pricing model to estimate the fair value of the warrants. Changes in the fair value of these warrants are recorded in the statements of operations. The Company classifies the liabilities as noncurrent as the settlement of the warrants is not expected within the next twelve months.

**Redeemable Convertible Preferred Stock** — The Company classifies redeemable convertible preferred stock that is redeemable outside of the Company's control outside of permanent equity. The Company recorded such redeemable preferred stock at fair value upon issuance, net of any issuance costs or discounts, and the carrying value is being increased by periodic accretion to its redemption value. In the absence of retained earnings these accretion charges are recorded against additional paid in capital, if any, and then to accumulated deficit. The Company amortizes the accretion using the interest method.

**Stock-Based Compensation** — The Company accounts for stock-based awards at fair value, which is measured using the Black-Scholes option-pricing model. The fair value measurement date for employee

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awards is generally the date of grant. The fair value measurement date for nonemployee awards is generally the date the performance of services is completed. Stock-based compensation costs are recognized as an expense over the requisite service period, which is generally the vesting period, on a straight-line basis for all time-vested awards.

Stock-based awards to nonemployees are remeasured at each reporting date and recognized as services are rendered, generally on a straight-line basis. The Company believes that the fair value of these awards is more reliably measurable than the fair value of the services rendered. Stock-based compensation is classified in the accompanying consolidated statements of operations in the department where the related services are provided.

**Net Loss per Share Attributable to Common Stockholders** — Basic net loss attributable to common stockholders per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common shares outstanding for the period. During periods where the Company might earn net income, the Company would allocate participating securities a proportional share of net income determined by dividing total weighted average participating securities by the sum of the total weighted average common shares and participating securities (the “two-class method”). The Company’s preferred stock participates in any dividends declared by the Company and are therefore considered to be participating securities. Participating securities have the effect of diluting both basic and diluted earnings per share during periods of income. During periods where the Company incurred net loss, the Company allocates no loss to participating securities because they have no contractual obligation to share in the losses of the Company. The Company computes diluted loss per common share after giving consideration to the dilutive effect of stock options, warrants and unvested restricted stock that are outstanding during the period, except where such nonparticipating securities would be antidilutive.

**Income Taxes** — Deferred income taxes are provided for the temporary differences arising between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and for operating loss carryforwards and credits. Deferred tax assets and liabilities are recorded using tax rates expected to be in effect in the year in which the differences are expected to reverse. A valuation allowance is provided for any net deferred tax assets for which management believes it is more likely than not that the net deferred tax assets will not be realized.

The Company provides reserves for potential payment of tax to various tax authorities related to uncertain tax positions. The tax benefits recorded are based on a determination of whether and how much of a tax benefit taken by the Company in its filings or positions is “more likely than not” to be realized following resolution of any uncertainty related to the tax benefit, assuming the matter in question will be raised by the tax authorities. Potential interest and penalties associated with such uncertain tax positions are recorded as a component of income tax expense. At December 31, 2012 and 2013, the Company has not identified any significant uncertain tax positions.

**Guarantees and Indemnification** — As permitted under Delaware law, the Company indemnifies its officers, directors, and employees for certain events or occurrences while the officer or director is, or was serving at the Company’s request in such a capacity. The term of the indemnification is for the officer’s or director’s lifetime.

**Subsequent Events** — The Company has evaluated subsequent events through March 7, 2014, the date on which the accompanying financial statements were issued.

### 3. NET LOSS PER SHARE ATTRIBUTABLE TO COMMON STOCKHOLDERS

The following table summarizes the computation of basic and diluted net loss per share attributable to common stockholders of the Company:

	Years Ended December 31,	
	2012	2013
Net loss	\$ (22,101,000)	\$ (17,143,000)
Accretion of preferred stock issuance costs to redemption value	(73,000)	—
Net loss attributable to common stockholders — basic and diluted	<u>\$ (22,174,000)</u>	<u>\$ (17,143,000)</u>
Weighted-average number of common shares — basic and diluted	8,839,998	9,927,850
Net loss per share attributable to common stockholders — basic and diluted	\$ (2.51)	\$ (1.73)

The Company has reported a net loss for all periods presented, therefore diluted net loss per common share is the same as basic net loss per common share.

The following potentially dilutive securities outstanding, prior to the use of the two-class method, have been excluded from the computation of diluted weighted-average shares outstanding, because such securities had an antidilutive impact due to the losses reported (in common stock equivalent shares):

	As of December 31,	
	2012	2013
Options to purchase common stock	15,177,272	15,416,896
Warrants to purchase redeemable convertible preferred stock	1,866,816	1,866,816
Redeemable convertible preferred stock	101,446,511	99,028,475
Convertible notes payable	—	10,912,571

The unaudited pro forma basic and diluted loss per share attributable to common stockholders for the year ended December 31, 2013 give effect to the automatic conversion of all shares of redeemable convertible preferred stock upon an initial public offering by treating all shares of redeemable convertible preferred stock as if they had been converted to common stock in all periods in which such shares were outstanding. In addition the pro forma basic and diluted loss per share attributable to common stockholders give effect to the automatic conversion of the convertible notes (see Note 6) using a per share price of \$0.83. The actual price per share could differ from the \$0.83 per share as the convertible notes may be converted in a qualified financing (including the contemplated IPO) prior to August 15, 2014 when the convertible notes may be converted into Series D Preferred Stock on demand by the noteholders. Accordingly, the pro forma basic and diluted loss per share attributable to common stockholders do not include effects of the accretion of redeemable convertible preferred stock to redemption value and the interest expense on the convertible notes payable. Shares to be sold in the offering are excluded from the unaudited pro forma basic and diluted loss per share attributable to common stockholders calculations. As the Company incurred a net loss for the year ended December 31, 2013, there is no income allocation required under the two-class method or dilution attributed to pro forma weighted-average shares outstanding in the calculation of pro forma diluted loss per share attributable to common stockholders.

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Unaudited pro forma basic and diluted loss per share attributable to common stockholders are computed as follows:

	Year Ended December 31, 2013
<b>Pro forma loss per share — basic and diluted</b>	
Numerator:	
Net loss attributable to common stockholders — basic and diluted	\$ (17,143,000)
Add: Accretion of preferred stock issuance costs to redemption value	—
Add: Interest expense on convertible notes payable	234,000
Net loss attributable to common stockholders — basic and diluted	<u>\$ (16,909,000)</u>
Denominator:	
Weighted-average number of shares outstanding — basic and diluted	9,927,850
Add: adjustment to reflect assumed effect of conversion of redeemable convertible preferred stock and convertible notes payable	104,423,267
Pro forma weighted-average number of shares outstanding — basic and diluted	<u>114,351,117</u>
Pro forma basic net loss per share — basic and diluted	<u>\$ (0.15)</u>

## 4. PROPERTY AND EQUIPMENT

Property and equipment, consist of the following:

	December 31,	
	2012	2013
Laboratory equipment	\$ 1,417,000	\$ 1,246,000
Computer equipment and purchased software	193,000	183,000
Office furniture and equipment	257,000	257,000
Leasehold improvements	91,000	91,000
	<u>1,958,000</u>	<u>1,777,000</u>
Less accumulated depreciation and amortization	(1,516,000)	(1,532,000)
	<u>\$ 442,000</u>	<u>\$ 245,000</u>

Depreciation and amortization expense for the years ended December 31, 2012 and 2013 was \$346,000 and \$197,000, respectively.

## 5. ACCRUED EXPENSES

Accrued expenses consist of the following:

	As of December 31,	
	2012	2013
Accrued expenses	\$ 316,000	\$ 613,000
Accrued clinical trial costs	989,000	610,000
Accrued contract manufacturing expenses	974,000	433,000
Accrued compensation and benefits	462,000	618,000
Total accrued expenses	<u>\$2,741,000</u>	<u>\$2,274,000</u>

## 6. CONVERTIBLE NOTES PAYABLE TO SHAREHOLDERS

In May 2010 and September 2010, the Company issued one-year convertible notes payable in the amounts of \$5,000,000 and \$1,500,000, respectively, to existing investors, with a stated interest rate of 7%. In November 2010, the principal and accrued interest of \$176,000 were converted into 9,021,175 shares of Series C Preferred Stock at \$0.74 per share (see Note 8). The Company also provided for the issuance of seven-year warrants to purchase Series C Preferred Stock with the notes. The issuance of the warrants was contingent upon the conversion of the notes to Series C Preferred Stock. The number of shares included in the warrants was determined by dividing 10% of the note principal converted to Series C Preferred Stock by the Series C Preferred Stock per share issue price. Concurrent with the conversion of the notes, warrants to purchase 878,370 shares of Series C Preferred Stock at \$0.74 per share became exercisable. The Company estimated the fair value of the warrants on the issue date to be \$474,000 using the Black-Scholes option-pricing model with the following assumptions: volatility of 80%, contractual term of seven years, risk-free interest rate of 1.85%, and no dividend yield. As of December 31, 2012 and 2013, the estimated fair value of the warrants was \$500,000 and \$386,000, respectively, estimated using the Black-Scholes option-pricing model with the following assumptions: volatility of 86% and 65%, remaining contractual term of 5 and 4 years, risk-free interest rate of 1.13% and 2.29%, respectively, and no expected dividends. These warrants are classified as a liability in the accompanying balance sheets. The adjustments to the Series C Preferred Stock warrant liability recorded as other income (expense) in the years ended December 31, 2012 and 2013, were \$18,000 and \$114,000, respectively.

On August 15, 2013, the Company issued convertible promissory notes in the amount of \$8,824,000, to existing investors, with a stated interest rate of 7%. The notes are payable on demand by the investors on or after August 15, 2014. Principal and unpaid accrued interest due under these notes will automatically be converted into the Company's capital stock at the closing of the Company's next qualified financing or upon a qualified initial public offering, based on a conversion price equal to the price per share paid by other investors in the financing. If the financing does not occur on or before August 15, 2014, the principal and unpaid accrued interest can be converted by the investors into shares of the Company's Series D Convertible Preferred Stock at a price of \$0.83 per share (subject to adjustment). No additional financing has occurred to date.

## 7. LOAN AGREEMENTS

In August 2008, the Company entered into a Loan and Security Agreement (the "Loan Agreement") with a bank to borrow up to \$1,500,000 in one or more advances to finance certain equipment purchases made by the Company through May 31, 2009. In September 2008, the Company received its only advance totaling \$695,000 and issued a note payable to the bank. No additional advances were made. The note was payable over a 48-month period in equal principal payments, plus interest on the outstanding balance, fixed at the 8.75%. The note was secured by a security interest in the specific equipment financed. In September 2012, the Company paid the remaining balance in accordance with the original repayment schedule.

In connection with the Loan Agreement, the Company issued the bank a warrant to purchase 15,000 shares of the Company's Series B Preferred Stock at an exercise price of \$2.00 per share. The warrant was immediately exercisable and expires 10 years from the date of grant (August 2018). The value of the warrant was recorded as a discount to the note payable and was amortized to interest expense using the effective interest method over the 48-month repayment term. The Company estimated the fair value of the warrant on the grant date to be \$25,000 using the Black-Scholes option-pricing model with the following assumptions: volatility of 79%, contractual term of 10 years, risk-free interest rate of 3.89%, and no dividend yield. As of December 31, 2012 and 2013, the estimated fair value of the warrant was \$7,000 and \$4,000, respectively, estimated using the Black-Scholes option-pricing model with the following assumptions: volatility of 84% and 64%, remaining contractual term of 6 and 5 years, risk-free interest rate

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of 1.72% and 2.90%, respectively, and no expected dividends. The warrant is classified as a liability in the accompanying balance sheets. The adjustments to the Series B Preferred Stock warrant liability recorded as other income in the years ended December 31, 2012 was immaterial, and \$3,000 for the year ended December 31, 2013.

In December 2011, the Company entered into a loan and security agreement with Lighthouse Capital Partners VI, L.P. ("Lighthouse Capital") to borrow up to \$10,000,000 in one or more advances by December 31, 2012. Debt proceeds are available to the Company to fund research and development activities and other general corporate purposes. The Company granted Lighthouse Capital a first priority security interest in all unsecured present and future assets, other than intellectual property, and the Company entered into a negative pledge agreement with the lender, whereby the Company agrees not to grant a security interest in or encumber any of the Company's intellectual property. The Company also has restrictions on its ability to obtain additional debt that is not permitted under the agreement. No advances were made under this loan and security agreement in 2011. In both March 2012 and August 2012, the Company borrowed \$5,000,000 under the loan and security agreement, for a total of \$10,000,000. This amount is being repaid over 36 months beginning on December 1, 2012, at an interest rate of 8.25%.

In addition, the Company is required to make an additional interest payment in the amount of \$600,000 at the end of the loan term. The amount is being accrued over the loan term as interest expense. The amounts accrued as of December 31, 2012 and December 31, 2013 total \$37,000 and \$391,000, respectively and are included as non-current accrued interest expense in the accompanying balance sheets. The minimum future principal payments are as follows:

<u>Years Ending December 31,</u>	
2014	\$ 3,349,000
2015	3,321,000
Total	6,670,000
Unamortized discount relating to warrants	(412,000)
Total	6,258,000
Less current portion	(3,134,000)
Long-term portion	<u>\$ 3,124,000</u>

In connection with the loan and security agreement with Lighthouse Capital, the Company issued the lender a warrant to purchase a maximum of 963,856 shares of the Company's Series D Preferred Stock, at an exercise price of \$0.83 per share. The warrant was immediately exercisable for 421,687 shares at the date of issue and expires 10 years from the date of issue (December 2021). The exercisable shares increased in March 2012 and August 2012 as the Company borrowed under the loan and security agreement. At December 31, 2012, 963,856 shares were exercisable. The fair value of the warrant was estimated on the date of issue for the exercisable shares at that date and the fair value of each increment was estimated on the date the shares became exercisable, using the Black-Scholes option-pricing model. The Company estimated the fair value of the warrant for shares exercisable on the issue date in December 2011 and incremental shares exercisable in March 2012 and August 2012 to be \$284,000, \$182,000 and \$178,000, respectively. The following table shows the Black-Scholes assumptions used to value the preferred stock warrants in connection with the loan and security agreement on the respective dates:

	<u>Series D Preferred Stock Warrants</u>		
	<u>December 2011</u>	<u>March 2012</u>	<u>August 2012</u>
Contractual life	10 years	9.69 years	9.29 years
Volatility rate	80%	80%	80%
Risk-free interest rate	1.98%	2.17%	1.68%
Expected dividends	—	—	—



The value of the warrant is recorded as a discount to the note payable and is being amortized to interest expense using the effective interest method over the 36-month repayment term.

As of December 31, 2012 and 2013, the estimated fair value of the warrants was \$623,000 and \$538,000, respectively, estimated using the Black-Scholes option-pricing model with the following assumptions: volatility of 79% and 64%, remaining contractual term of 9 and 8 years, risk-free interest rate of 1.72% and 2.90%, respectively, and no expected dividends. The warrant is classified as a liability in the accompanying balance sheets. The adjustment to the Series D Preferred Stock warrant liability recorded as other income in the year ended December 31, 2012 was \$21,000 and \$85,000 in the year ended December 31, 2013.

## 8. REDEEMABLE CONVERTIBLE PREFERRED STOCK

The following is a summary of the Company's convertible redeemable preferred stock.

Preferred stock consisted of the following as of December 31, 2012:

	<b>Preferred Shares Authorized</b>	<b>Issuance Date</b>	<b>Preferred Shares Issued and Outstanding</b>	<b>Redemption Value/Liquidation Preference</b>	<b>Carrying Value</b>
Seed	2,500,000	December 2006	2,500,000	\$ 2,000,000	\$ 2,000,000
Series A	9,307,692	May 2007	9,307,692	12,100,000	12,100,000
Series B	4,077,500	December 2007	4,062,500	8,125,000	8,125,000
Series B-1	5,000,000	July 2009	5,000,000	10,000,000	10,000,000
Series C	33,310,787	November 2010 and June 2011	32,432,417	24,000,000	23,526,000
Series D	34,698,793	December 2011 and November 2012	33,733,937	28,000,000	28,000,000
	<u>88,894,772</u>		<u>87,037,546</u>	<u>\$ 84,225,000</u>	<u>\$ 83,751,000</u>

Preferred stock consisted of the following as of December 31, 2013:

	<b>Preferred Shares Authorized</b>	<b>Issuance Date</b>	<b>Preferred Shares Issued and Outstanding</b>	<b>Redemption Value/Liquidation Preference</b>	<b>Carrying Value</b>
Seed	2,500,000	December 2006	2,500,000	\$ 2,000,000	\$ 2,000,000
Series A	9,307,692	May 2007	9,307,692	12,100,000	12,100,000
Series B	4,077,500	December 2007	3,562,500	7,125,000	7,125,000
Series B-1	5,000,000	July 2009	4,842,500	9,685,000	9,685,000
Series C	33,310,787	November 2010 and June 2011	31,836,392	23,559,000	23,094,000
Series D	34,698,793	December 2011 and November 2012	33,158,272	27,521,000	27,521,000
	<u>88,894,772</u>		<u>85,207,356</u>	<u>\$ 81,990,000</u>	<u>\$ 81,525,000</u>

In December 2005, the Company entered into an agreement with a potential investor for a one-year convertible note payable in the amount of \$500,000, with a stated interest rate of 4.5%. In December 2006, the Company issued an aggregate of 2,500,000 shares of Seed Redeemable Convertible Preferred Stock ("Seed Preferred") at an original issuance price of \$0.80 per share for gross proceeds of \$1,500,000 and the conversion of \$500,000 of convertible promissory notes and \$22,000 of accrued interest and incurred issuance costs of \$83,000.

In May 2007, the Company sold 9,307,692 shares of Series A Redeemable Convertible Preferred Stock ("Series A Preferred") at an original issuance price of \$1.30 per share for gross proceeds of \$12,100,000, and incurred issuance costs of \$56,000.

In December 2007, the Company sold 4,062,500 shares of Series B Redeemable Convertible Preferred Stock ("Series B Preferred") at an original issuance price of \$2.00 per share for gross proceeds of \$8,125,000 and incurred issuance costs of \$45,000.

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In July 2009, the Company sold 5,000,000 shares of Series B-1 Redeemable Convertible Preferred Stock (“Series B-1 Preferred”) at an original issuance price of \$2.00 per share for gross proceeds of \$10,000,000 and incurred issuance costs of \$75,000.

In November 2010, the Company issued an aggregate of 22,297,289 shares of Series C Preferred Stock (“Series C Preferred”) at an original issuance price of \$0.74 per share for gross proceeds of \$10,000,000 and the conversion of the \$6,500,000 of convertible promissory notes and \$176,000 of accrued interest (see Note 6) and incurred issuance costs of \$264,000.

In June 2011, the Company sold 10,135,128 shares of Series C Preferred at an issuance price of \$0.74 per share for gross proceeds of \$7,500,000 and incurred issuance costs of \$22,000.

In December 2011, the Company sold 18,072,287 shares of Series D Redeemable Convertible Preferred Stock (“Series D Preferred”) at an original issuance price of \$0.83 per share for gross proceeds of \$15,000,000 and incurred issuance costs of \$76,000.

In November 2012, the Company sold 15,662,650 shares of Series D Preferred Stock at an original issuance price of \$0.83 per share for gross proceeds of \$13,000,000 and incurred issuance costs of \$73,000.

In July 2013, the Company converted 500,000, 157,500, 596,025, and 576,665 shares of Series B Preferred, Series B-1 Preferred, Series C Preferred and Series D Preferred stock, respectively, into 2,418,036 shares of the Company’s common stock.

*Warrants* — The Company’s outstanding warrants are detailed in the table below:

<b>Warrants to Purchase</b>	<b>Number of Shares</b>	<b>Fair value at December 31,</b>	
		<b>2012</b>	<b>2013</b>
Series B Preferred Stock	15,000	\$ 7,000	\$ 4,000
Series C Preferred Stock	878,370	500,000	386,000
Series D Preferred Stock	963,856	623,000	538,000
	<u>1,857,226</u>	<u>\$ 1,130,000</u>	<u>\$ 928,000</u>

The Seed Preferred, Series A Preferred, Series B Preferred, Series B-1 Preferred, Series C Preferred, and Series D Preferred (collectively, “Preferred Stock”) have the following rights and privileges:

*Voting* — The holders of the Preferred Stock are entitled to vote, together with the holders of common stock, on all matters submitted to stockholders for a vote, except with respect to matters on which Delaware General Corporation Law requires that a vote will be by a separate class. Each preferred stockholder is entitled to the number of votes equal to the number of shares of common stock into which each preferred share then held by such stockholder is convertible at the time of such vote. The holders of the Seed Preferred, the Series A Preferred, the Series C Preferred, and the Series D Preferred have voting preferences in that they each have the exclusive right to elect one director to the Company’s Board of Directors (“Preferred Directors”). The consent of the Preferred Directors is required for the Company to effect certain transactions.

*Dividends* — The holders of Series A Preferred, Series B Preferred, Series B-1 Preferred, Series C Preferred, and Series D Preferred stock are entitled to receive noncumulative dividends at the annual rate of 8% on the respective original issue price, as defined, when and if declared by the Board of Directors. Additionally, in the event that a dividend is declared for the holders of common stock, the holders of the Preferred Stock are entitled to the amount of dividends on an as-converted basis. No dividends have been declared since the Company’s incorporation.

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*Liquidation Preference* — In the event of any liquidation, dissolution, change of control, as defined, or winding up of the affairs of the Company, the holders of the then-outstanding Preferred Stock shall receive the respective original issue price, plus all declared but unpaid dividends, payable in preference and priority to any payments made to the holders of the then-outstanding common stock. After payment to the holders of the Preferred Stock of the preferential amounts so payable to them, any remaining assets of the Company shall be distributed to the holders of the common stock and the Preferred Stock ratably in proportion to the number of shares of common stock they then hold, determined for this purpose as if each share of Preferred Stock had been converted voluntarily into common stock at the then-applicable conversion price immediately prior to the liquidation event, provided that the aggregate of all liquidation payments to Preferred Stockholders will not exceed two times the original issue price, for each share of Preferred Stock. Any remaining assets of the Company shall be distributed to the holders of the common stock ratably in proportion to the number of shares of common stock they then hold. If the assets or surplus funds to be distributed to the holders of the Preferred Stock are insufficient to permit the payment to such holders of their full preferential amount, the assets and surplus funds legally available for distribution shall be distributed ratably among the holders of the Preferred Stock in proportion to the full preferential amount each such holder is otherwise entitled to receive.

*Conversion* — Each share of Preferred Stock, at the option of the holder, is convertible into that number of the fully paid shares of common stock as determined by dividing the sum of the original issuance price, plus any declared but unpaid dividends by the conversion price in effect at the time of conversion. The initial conversion price is the respective original issue price, subject to adjustment in accordance with the antidilution provisions of each series. Conversion is automatic immediately upon the closing of a firm commitment underwritten public offering with an offering price of at least \$2.50 per share, and resulting in at least \$30,000,000 of gross proceeds to the Company, pursuant to an effective registration statement under the Securities Exchange Act of 1933, as amended, provided such offering has been approved by the Company's Board of Directors, including the Preferred Directors as defined above, or upon the written consent of at least 58% of the Preferred Stock outstanding at that time. As of December 31, 2013, the conversion rate for the Seed Preferred, Series A, Series B, Series B-1, Series C and Series D to common stock is on a basis of 1 to 1.053, 1 to 1.340, 1 to 1.639, 1 to 2.703, 1 to 1, 1 to 1, respectively, immediately prior to the closing of an initial public offering.

*Redemption* — With a vote by holders of at least 58% of the Preferred Stock voting together as a single class, each holder of the Preferred Stock has the right to cause the Company, on or after the fifth anniversary of the Series D original issue date (December 2, 2016), to redeem the Preferred Stock, at a price equal to the original issuance price, plus all declared but unpaid dividends, in three annual installments.

## 9. STOCKHOLDERS' DEFICIT

**Common Stock** — During 2006, the Company issued an aggregate of 7,500,000 shares of common stock to the founders of the Company for aggregate consideration of \$1,000, the then deemed fair value of the common stock.

In April 2007, the Company entered into consulting agreements with two members of its Board of Directors, and as compensation for their services issued a total of 450,000 shares of common stock to the directors at par value of \$0.0001, for total consideration of \$45. The shares were subject to vesting restrictions that lapsed on a straight-line basis over 48 months, beginning in January 2007 and becoming fully vested in 2010. The Company had the right to repurchase the unvested shares at the original purchase price, if the relationship between the Company and the shareholder was terminated during the vesting period. All shares of common stock that were subject to repurchase restrictions had the same rights and privileges as unrestricted shares of common stock and were presented as outstanding as the restrictions lapsed. The restricted common stock issued to nonemployees was subject to remeasurement, and the Company recorded the value at the time services were provided and the shares vested.

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In December 2006, the Company issued an aggregate of 526,314 shares of common stock to the Massachusetts Institute of Technology (MIT) and certain individuals affiliated with MIT, pursuant to a technology license agreement (“MIT License”). The deemed fair value of the shares of common stock of \$142,000 was recorded as research and development expense in 2006. In March 2007 and May 2007, as a result of certain antidilution provisions in the MIT License, the Company issued an aggregate of 187,247 shares of common stock to MIT at a deemed fair value of \$60,000, which was recorded as research and development expense in 2007. The anti-dilution provisions of the license provided that the Company issue additional shares such that the MIT holders’ ownership of the outstanding common stock did not fall below 5% on a fully diluted basis until a total of \$5,000,000 in cash had been raised by the Company with the sale of the Company’s capital stock. The Company’s antidilution obligations associated with the MIT License were satisfied in May 2007, as a result of the Series A Preferred Stock financing, and no additional shares of common stock will be issued under the MIT License.

**Reserved Shares of Common Stock** — The Company has reserved the following number of shares of common stock at December 31, 2013, for the potential conversion of designated Preferred Stock and the exercise of the stock options summarized below:

Seed Preferred Stock	2,631,575
Series A Preferred Stock	12,474,262
Series B Preferred Stock	5,864,739
Series B-1 Preferred Stock	13,087,825
Series C Preferred Stock	32,714,762
Series D Preferred Stock	34,122,128
Common Stock options	17,434,529
Total	<u>118,329,820</u>

## 10. STOCK OPTION PLAN

The Company’s 2007 Incentive Stock Plan (the “Plan”) provides for the grant of qualified incentive stock options and nonqualified stock options or other awards to the Company’s employees, officers, directors, advisors, and outside consultants to purchase up to an aggregate of 18,200,000 shares of the Company’s common stock, as amended in February 2013. The stock options generally vest over a four-year period and expire 10 years from the date of grant. Certain options provide for accelerated vesting if there is a change in control, as defined in the Plan. The Company generally issues previously unissued shares of common stock for the exercise of stock options. At December 31, 2012, there were 1,086,636 shares available for future grant under the Plan. As of December 31, 2013 there were 2,017,633 shares available for future grant under the Plan.

The Company has recorded stock-based compensation expense of \$529,000 and \$622,000 during the years ended December 31, 2012 and 2013, respectively, which is based on the number of awards ultimately expected to vest. As of December 31, 2012 and December 31, 2013, there was \$1,069,000 and \$609,000, respectively, of unrecognized compensation cost related to unvested stock-based compensation arrangements granted under the Plan, which is expected to be recognized over a weighted-average period of 2.85 and 2.11 years at December 31, 2012 and December 31, 2013.

Stock-based compensation expense recorded as research and development and general and administrative expenses is as follows:

	As of December 31,	
	2012	2013
Research and development	\$187,000	\$284,000
General and administrative	342,000	338,000
Total	<u>\$529,000</u>	<u>\$622,000</u>

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The fair value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model based on the assumptions noted in the table below. Expected volatility for the Company's common stock was determined based on an average of the historical volatility of a peer-group of similar public companies. The Company has limited option exercise information, as such, the expected term of the options granted was calculated using the simplified method that represents the average of the contractual term of the option and the weighted-average vesting period of the option. The assumed dividend yield is based upon the Company's expectation of not paying dividends in the foreseeable future. The risk-free rate for periods within the contractual life of the option is based upon the U.S. Treasury yield curve in effect at the time of grant.

In determining the exercise prices for options granted, the Company's Board of Directors has considered the fair value of the common stock as of the measurement date. The fair value of the common stock has been determined by the Board of Directors at each award grant date based upon a variety of factors, including the results obtained from a common stock valuation, the Company's financial position and historical financial performance, the status of technological developments within the Company's products, the composition and ability of the current research and management team, an evaluation or benchmark of the Company's competition, the current business climate in the marketplace, the illiquid nature of the common stock, arm's-length sales of the Company's capital stock (including redeemable convertible preferred stock), the effect of the rights and preferences of the preferred shareholders, and the prospects of a liquidity event, among others.

The assumptions used in the Black-Scholes option-pricing model for stock options granted to employees during the years ended December 31, 2012 and 2013 are as follows:

	December 31,	
	2012	2013
Expected life	6 years	6 years
Risk-free interest rate	0.83%-1.12%	1.09%-1.92%
Expected volatility	77%-79%	59%-79%
Expected dividend rate	— %	— %

A summary of stock option activity for employee and nonemployee awards under the Plan during the year ended December 31, 2013 is presented below:

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding — January 1, 2013	15,177,272	\$ 0.27	8.3	\$ 274,000
Granted	1,632,332	\$ 0.28		
Exercised	(129,379)	\$ 0.28		
Forfeited	(1,263,329)	\$ 0.25		
Outstanding — December 31, 2013	15,416,896	\$ 0.27	7.2	\$ 7,028,000
Options expected to vest — December 31, 2013	6,297,137	\$ 0.26	8.5	\$ 2,941,000
Options exercisable — December 31, 2013	8,801,561	\$ 0.28	6.2	\$ 3,939,000

The total intrinsic value of stock options exercised in the years ended December 31, 2012 and 2013 and for the period November 28, 2005 (date of incorporation) to December 31, 2013 was \$0, \$15,000, and \$25,000, respectively.

The weighted-average per share grant date fair value of options granted during 2012 and 2013 was \$0.18 and \$0.20, respectively.

The Company did not grant any nonemployee stock option grants in 2012 or in 2013, except for the performance award grant to the board chairman discussed below. In 2011, the Company granted options for 771,000 shares of common stock to nonemployees with an initial fair value of \$161,000. The Company has recorded stock-based compensation expense related to nonemployee awards of \$39,000, and \$85,000 in 2012 and 2013, respectively. The compensation expense related to the nonemployee awards is included in the total stock-based compensation each year and is subject to re-measurement until the options vest. The Black-Scholes assumptions used to estimate fair value at December 31, 2012 and for December 31, 2013 were as follows: risk-free rate of 0.99% to 2.05% and 0.22% to 3.01%, estimated volatility of 76% to 79% and 55% to 79%, remaining contractual life of 6 years and no expected dividends, respectively.

The Company has granted stock options to purchase up to 2,991,998 shares of common stock to two of the Company's officers and the board of directors chairman for non-board related services. The vesting of these awards is contingent upon the Company's stock price upon a change of control or following the time when the Company's common stock is registered under the Securities Exchange Act of 1934, as amended, and is quoted, listed or traded on an over-the-counter market or national securities exchange. A portion of the awards also vest upon the achievement of business milestones as defined within the stock option agreement. Compensation expense for the awards will be recorded if and when vesting occurs.

## 11. FAIR VALUE MEASUREMENTS

The Company's financial instruments consist of cash equivalents, accounts payable, accrued expenses, debt obligations, and preferred stock warrants. The carrying amount of accounts payable and accrued expenses are considered a reasonable estimate of their fair value, due to the short-term maturity of these instruments. The carrying amount of debt is also considered to be a reasonable estimate of the fair value based on the short term nature of the debt and that the debt bears interest at the prevailing market rate for instruments with similar characteristics. Included in cash and cash equivalents as of December 31, 2012 and 2013, are money market fund investments of \$16,681,000 and \$5,233,000, respectively, which are reported at fair value.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value are performed in a manner to maximize the use of observable inputs and minimize the use of unobservable inputs.

The accounting standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value, which are the following:

*Level 1* — Quoted prices in active markets that are accessible at the market date for identical unrestricted assets or liabilities.

*Level 2* — Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs for which all significant inputs are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

*Level 3* — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

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A summary of the financial assets and liabilities that are measured on a recurring basis at fair value as of December 31, 2012 and 2013, is as follows:

	Carrying Value	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>December 31, 2012</b>				
Money market funds	\$16,681,000	\$ —	\$16,681,000	\$ —
Preferred stock warrant liability	1,130,000	—	—	1,130,000
<b>December 31, 2013</b>				
Money market funds	\$ 5,233,000	\$ —	\$ 5,233,000	\$ —
Preferred stock warrant liability	928,000	—	—	928,000

The convertible notes payable and loan agreements are Level 2 measurements in the fair value hierarchy.

The Company's money market funds have been valued on the basis of valuations provided by third-party pricing services, as derived from such services' pricing models. Inputs to the models may include, but are not limited to, reported trades, executable bid and asked prices, broker/dealer quotations, prices or yields of securities with similar characteristics, benchmark curves or information pertaining to the issuer, as well as industry and economic events. The pricing services may use a matrix approach, which considers information regarding securities with similar characteristics to determine the valuation for a security. The Company is ultimately responsible for the consolidated financial statements and underlying estimates. Accordingly, the Company assesses the reasonableness of the valuations provided by the third-party pricing services by reviewing actual trade data, broker/dealer quotes and other similar data, which are obtained from quoted market prices or other sources.

For the years ended December 31, 2012 and 2013, there have been no transfers between levels.

The reconciliation of the Company's liabilities measured at fair value on a recurring basis using unobservable inputs (Level 3) is as follows:

	Preferred Stock Warrant			
	Series B	Series C	Series D	Total
Balance — January 1, 2012	\$ 7,000	\$ 518,000	\$284,000	\$ 809,000
New warrants issued during the year			360,000	360,000
Decrease in fair value recorded in other income	—	(18,000)	(21,000)	(39,000)
Balance — December 31, 2012	7,000	500,000	623,000	1,130,000
Decrease in fair value recorded in other income	(3,000)	(114,000)	(85,000)	(202,000)
Balance — December 31, 2013	\$ 4,000	\$ 386,000	\$538,000	\$ 928,000

The Company's warrants were valued using the Black-Scholes option-pricing model (see Notes 6 and 7).

The preferred stock warrant liability will increase or decrease each period based on the fluctuations of the fair value of the underlying preferred security.

## 12. INCOME TAXES

Significant components of the Company's deferred taxes at December 31, 2012 and 2013 are as follows:

	2012	2013
Net operating loss carryforwards	\$ 26,892,000	\$ 25,696,000
Research and development credit carryforwards	1,267,000	1,525,000
Capitalized costs	2,741,000	3,067,000
Capitalized research and development costs	—	6,992,000
Other	522,000	220,000
Total deferred tax assets	31,422,000	37,500,000
Valuation allowance	(31,422,000)	(37,500,000)
Net deferred tax assets	\$ —	\$ —

The Company has provided a valuation allowance for the full amount of deferred tax assets as the realization of the deferred tax assets is not determined to be more-likely-than-not. The valuation allowance increased in 2012 and 2013 by approximately \$7,603,000 and \$6,078,000, respectively, due to the increase in the deferred tax assets by the same amount.

At December 31, 2013, the Company has approximately \$66,807,000 of federal and \$54,189,000 of state net operating loss carryforwards that expire at various dates through 2033. At December 31, 2013, the Company has approximately \$1,026,000 of federal and \$757,000 of state research and development credit carryforwards that expire at various dates through 2033 for federal credits and 2028 for state credits.

Realization of the future tax benefits is dependent on many factors, including the Company's ability to generate taxable income within the net operating loss carryforward period. The future realization of the net operating loss carryforwards may also be limited by the change of ownership rules of the Internal Revenue Service under Section 382 of the Internal Revenue Code. If substantial changes in ownership should occur, there could be annual limitations on the amount of carryforwards that can be realized in future periods.

The Company files income tax returns in the United States and the Commonwealth of Massachusetts. The tax years 2005 through 2013 remain open to examination by these taxing jurisdictions, as carryforwards attributes generated in past years may be adjusted in a future period. The Company is currently not under examination by the Internal Revenue Service or any other jurisdictions for any tax years. The Company does not believe material uncertain tax positions have arisen to date.

## 13. COMMITMENTS

**Facility Lease** — On November 1, 2009, the Company entered into a noncancelable operating lease with a third party for office and laboratory space that was scheduled to expire in February 2013, subject to a three-year renewal option. The lease agreement includes base rent escalation over the initial term, therefore, the Company is amortizing the cost of the lease on a straight-line basis over the lease term and the resulting deferred liability recorded in other liabilities as of December 31, 2012 and 2013 was \$14,000 and \$12,000, respectively. Rent expense under this lease was \$517,000 and \$598,000 for the years ended December 31, 2012 and 2013, respectively. The lease requires the Company to share in prorated expenses and property taxes based upon actual amounts incurred; those amounts are not fixed for future periods and, therefore, not included in the future minimum obligations listed below. In June 2012, the Company exercised its renewal option extending the lease through February 2016.



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Future minimum lease payments, including the three-year extension, under the noncancelable operating lease are as follows:

<u>Years Ending December 31,</u>	<u>Operating Leases</u>
2014	610,000
2015	624,000
2016	104,000
Total	<u>\$ 1,338,000</u>

### 14. LICENSING AGREEMENTS

**Massachusetts Institute of Technology License** — The Company’s license agreement with the Massachusetts Institute of Technology (“MIT”), as amended, requires the Company pay MIT nonrefundable annual license maintenance fees that increase each year beginning in 2015 through 2020 and remain constant thereafter. The annual license fee is not material in any individual year. In addition, the Company may be required to pay milestone payments and/or product royalties in the event future partner collaborations or product sales incorporate technology covered by this license agreement. In connection with this agreement, the Company recorded research and development expense for annual maintenance fees of \$10,000 each in the years ended December 31, 2012 and 2013, respectively.

**Calando License** — The Company has a product license agreement and a platform license agreement with Calando Pharmaceuticals, Inc. (“Calando”). Under the product license agreement, the Company may be required to pay Calando up to \$32.8 million upon the achievement of specified regulatory and commercial milestones and pay tiered royalty payment ranging from low-to mid-single digits on commercial sales.

Under the platform license agreement, the Company will be required to pay Calando a \$250,000 clinical development milestone upon initiation of a Phase 1 clinical trial. In addition, the Company may be required to pay Calando up to \$17.8 million upon the achievement of specified regulatory and commercial milestones and pay royalty payments ranging from low-to mid-single digits on commercial sales.

There have been no milestones achieved or commercial sales related to either of the Calando license agreements.

**SUNY License** — The Company is party to a license agreement with The Research Foundation of State University of New York (“SUNY”) for certain intellectual property. The agreement as amended requires the Company to pay nonrefundable annual license maintenance fees each year until the date of first commercial sale of a licensed product pursuant to the license agreement, as amended. The annual license fee is not material in any individual year. In the event of future partner collaborations or product sales incorporating technology covered by this license agreement, the Company may be required to pay milestone payments and/or product royalties. In connection with this agreement, the Company recorded research and development expense of \$10,000 and \$25,000 for the years ended December 31, 2012 and 2013, respectively.

### 15. RETIREMENT PLANS

The Company has a 401(k) retirement and profit-sharing plan (the “401(k) Plan”) covering all qualified employees. The 401(k) Plan allows each participant to contribute a portion of their base wages up to an amount not to exceed an annual statutory maximum. Effective January 1, 2010, the Company adopted a Safe Harbor Plan that provides a Company match up to 4% of salary. The Company contributed a match of \$165,000 and \$145,000 to the 401(k) Plan for the years ended December 31, 2012 and 2013, respectively.

**16. RELATED PARTY TRANSACTIONS**

In April 2013, the Company entered into a laboratory, equipment sharing, services and license agreement with an entity affiliated with one of the Company's directors. Fees recorded offsetting research and development expenses under this agreement and paid in the year ended December 31, 2013, were \$84,000.

In August 2013 and February 2014, the Company issued convertible promissory notes to existing investors, as described in Notes 6 and 18.

**17. REVENUE**

The Company entered into a material transfer agreement in February 2012 with a biopharmaceutical company and amended the agreement in March 2012. The terms of the agreement provided revenue in exchange for conducting research using the Company's proprietary technology and the pharmaceutical company's proprietary compounds. The Company received \$625,000 under this agreement and recognized this amount as revenue during 2012, the period when the research work was performed and all deliverables were completed.

In October 2013, the Company entered into a material transfer agreement with another biopharmaceutical company to conduct feasibility studies using the Company's proprietary technology. The Company recognized revenue of \$6,000 for the year ended December 31, 2013 in connection with this material transfer agreement.

**18. SUBSEQUENT EVENTS**

In 2014, the Company issued convertible promissory notes in the aggregate amount of \$6,000,000 to existing investors and \$2,500,000 to a new investor. All the notes have a stated interest rate of 7%, and are payable within 30 days of written demand by the investors after February 26, 2015. Principal and unpaid accrued interest due under these notes will automatically be converted into the Company's capital stock at the closing of the Company's next qualified financing or upon a qualified initial public offering, based on a conversion price equal to 77.5% of the price per share paid by other investors in the financing. If the financing does not occur on or before February 26, 2015, the principal and unpaid accrued interest can be converted at the election of the investors into shares of the Company's Series D Convertible Preferred Stock at a price of \$0.83 per share (subject to adjustment).

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**SHARES OF COMMON STOCK**

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**Leerink Partners**

**Canaccord Genuity**

**JMP Securities**

**Wedbush PacGrow Life Sciences**

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Until \_\_\_\_\_, 2014 (25 days after commencement of this offering), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

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**Part II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 13. Other Expenses of Issuance and Distribution.**

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the Securities and Exchange Commission registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and the NASDAQ Global Market listing fee.

	Amount
Securities and Exchange Commission registration fee	\$ 9,660
FINRA filing fee	13,438
NASDAQ Global Stock Market listing fee	25,000
Accountants' fees and expenses	*
Legal fees and expenses	*
Blue Sky fees and expenses	*
Transfer Agent's fees and expenses	*
Printing and engraving expenses	*
Miscellaneous	*
Total expenses	<u>\$ _____</u> *

\* To be filed by amendment.

**Item 14. Indemnification of Directors and Officers.**

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation provides that no director of the Registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have

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been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Upon completion of this offering, our certificate of incorporation provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our certificate of incorporation provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended (the "Securities Act"), against certain liabilities.

### **Item 15. Recent Sales of Unregistered Securities.**

Set forth below is information regarding shares of our common stock, shares of our preferred stock, warrants to purchase shares of our preferred stock and promissory notes issued, and stock options and restricted stock awards granted, by us within the past three years that were not registered under the Securities Act of 1933,

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as amended, or the Securities Act. Also included is the consideration, if any, received by us for such shares and options and information relating to the section of the Securities Act, or rule of the Securities and Exchange Commission, under which exemption from registration was claimed.

### (a) Issuance of securities

In February and March 2014, we issued convertible promissory notes in an aggregate amount of \$8,500,000 to 16 investors.

In August 2013, we issued convertible promissory notes in an aggregate principal amount of \$8,823,903 to 14 investors.

In November 2012, we issued and sold 15,662,650 shares of our Series D preferred stock to 16 investors, at a price per share of \$0.83, for an aggregate purchase price of \$12,999,999.50.

In December 2011, we issued and sold 18,072,287 shares of our Series D preferred stock to 18 investors, at a price per share of \$0.83, for an aggregate purchase price of \$14,999,998.21.

In June 2011, we issued and sold 10,135,128 shares of our Series C preferred stock to 17 investors, at a price per share of \$0.74, for an aggregate purchase price of \$7,499,994.72.

No underwriters were involved in the foregoing issuances of securities. The securities described in this section (a) of Item 15 were issued to accredited investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(a)(2) under the Securities Act, relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. The recipients of securities in the transactions described above represented that they were accredited investors and were acquiring the securities for their own account for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof and that they could bear the risks of the investment and could hold the securities for an indefinite period of time and appropriate legends were affixed to the instruments representing such securities issued in such transactions.

### (b) Stock option grants

Between January 1, 2011 and March 7, 2014, we issued to certain employees, directors and consultants options to purchase an aggregate of 15,674,934 shares of our common stock, of which, as of March 7, 2014, options to purchase 1,277,298 shares of our common stock had been exercised or forfeited, and options to purchase 14,397,636 shares of our common stock remained outstanding at a weighted-average exercise price of \$0.33 per share.

The issuances of stock options and the shares of our common stock issuable upon the exercise of the options described in this paragraph (b) of Item 15 were issued pursuant to written compensatory plans or arrangements with our employees, directors and consultants, in reliance on the exemption provided by Rule 701 promulgated under the Securities Act, or pursuant to Section 4(a)(2) under the Securities Act, relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All recipients either received adequate information about us or had access, through employment or other relationships, to such information.

### (c) Issuance of warrant

On December 6, 2011, we issued a warrant to purchase an aggregate of 421,687 shares of Series D preferred stock at a price of \$0.83 per share to Lighthouse Capital Partners VI, L.P. On June 2, 2012, this warrant became exercisable for an additional 271,084 shares of Series D preferred stock at a price per share of \$0.83, and on October 2, 2012, this warrant became exercisable for an additional 271,085 shares of Series D preferred stock at a price per share of \$0.83.

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The securities described in this section (c) of Item 15 were issued to Lighthouse Capital Partners VI, L.P. in reliance upon an exemption from the registration requirements of the Securities Act, as set forth in Section 4(a)2) under the Securities Act relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required.

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. All certificates representing the issued shares of capital stock described in this Item 15 included appropriate legends setting forth that the securities have not been registered and the applicable restrictions on transfer.

### Item 16. Exhibits and Financial Statement Schedules.

#### (a) Exhibits.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
1.1*	Underwriting Agreement
3.1	Certificate of Incorporation of the Registrant, as amended
3.2	Amended and Restated Bylaws of the Registrant
3.3	Form of Certificate of Incorporation of the Registrant (to be effective upon the closing of this offering)
3.4	Form of By-laws of the Registrant (to be effective upon the closing of this offering)
4.1*	Specimen Stock Certificate evidencing the shares of common stock
5.1*	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP
10.1	2007 Stock Incentive Plan, as amended
10.2	Form of Incentive Stock Option Agreement under 2007 Stock Incentive Plan
10.3	Form of Nonstatutory Stock Option Agreement under 2007 Stock Incentive Plan
10.4*	2014 Stock Incentive Plan
10.5*	Form of Incentive Stock Option Agreement under 2014 Stock Incentive Plan
10.6*	Form of Nonstatutory Stock Option Agreement under 2014 Stock Incentive Plan
10.7†	License Agreement, dated as of May 22, 2000, as amended, between California Institute of Technology and Insert Therapeutics, Inc.
10.8†	Exclusive Patent License Agreement, dated as of December 21, 2006, as amended, between the Registrant and Massachusetts Institute of Technology
10.9†	Patent License Agreement, dated as of August 31, 2007, as amended, between the Registrant and The Research Foundation of State University of New York, on behalf of University of Buffalo
10.10†	IT-101 Agreement, dated as of June 23, 2009, as amended, between the Registrant and Calando Pharmaceuticals, Inc.
10.11†	Platform Agreement, dated as of June 23, 2009, as amended, between the Registrant and Calando Pharmaceuticals, Inc.
10.12†	Letter Agreement, dated as of August 6, 2013, between the Registrant and California Institute of Technology
10.13	Second Series D Convertible Preferred Stock Purchase Agreement, dated November 30, 2012, as amended

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<u>Exhibit Number</u>	<u>Description of Exhibit</u>
10.14	Commercial Lease Agreement, dated September 8, 2009, between the Registrant and Rivertech Associates II, LLC
10.15	Loan and Security Agreement, entered into as of December 6, 2011, as amended, between the Registrant and Lighthouse Capital Partners VI, L.P.
10.16	Form of Indemnification Agreement between the Registrant and each of its Executive Officers and Directors
10.17	Employment Agreement, dated as of April 8, 2009, by and between Registrant and Oliver Fetzter
10.18	Warrant to purchase shares of Series B Convertible Preferred Stock issued by the Registrant to Silicon Valley Bank
10.19	Form of Stock Purchase Warrant of the Registrant to purchase shares of Series C Convertible Preferred Stock
10.20	Preferred Stock Purchase Warrant to purchase shares of Series D Convertible Preferred Stock issued by the Registrant to Lighthouse Capital Partners VI, L.P., as amended
10.21	Offer Letter, dated as of January 4, 2012, by and between Registrant and Christopher Guiffre
10.22	Offer Letter, dated as of April 23, 2011, by and between Registrant and Edward Garmey
10.23	Stock Option Agreement and Contingent Consideration Award Agreement, dated March 31, 2013, between the Registrant and Oliver Fetzter
10.24	Stock Option Agreement and Contingent Consideration Award Agreement, dated March 31, 2013, between the Registrant and Alan Crane
10.25	Change in Control Severance Plan
10.26*	2014 Employee Stock Purchase Plan
21.1	Subsidiaries of the Registrant
23.1	Consent of Deloitte & Touche LLP
23.2*	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on signature page)

\* To be filed by amendment.

† Confidential treatment requested as to certain portions, which portions have been omitted and filed separately with the Securities and Exchange Commission.

(b) Financial Statement Schedules.

### **Item 17. Undertakings.**

(a) The undersigned registrant hereby undertakes to provide to the underwriter, at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

(b) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for



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indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(c) The undersigned hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

**SIGNATURES**

Pursuant to the requirements of the Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, State of Massachusetts, on this 10<sup>th</sup> day of March, 2014.

CERULEAN PHARMA INC.

By: /s/ Oliver S. Fetzter  
Oliver S. Fetzter, Ph.D.  
President and Chief Executive Officer

**POWER OF ATTORNEY**

We, the undersigned officers and directors of Cerulean Pharma Inc., hereby severally constitute and appoint Oliver Fetzter, Christopher D. T. Guiffre and Karen Roberts, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities held on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Oliver S. Fetzter</u> Oliver S. Fetzter, Ph.D.	President, Chief Executive Officer and Director (principal executive officer)	March 10, 2014
<u>/s/ Christopher D. T. Guiffre</u> Christopher D. T. Guiffre, J.D.	Senior Vice President and Chief Business Officer (principal financial officer)	March 10, 2014
<u>/s/ Karen L. Roberts</u> Karen L. Roberts	Senior Vice President, Finance and Administration (principal accounting officer)	March 10, 2014
<u>/s/ Alan L. Crane</u> Alan L. Crane	Director	March 10, 2014
<u>/s/ Paul A. Friedman</u> Paul A. Friedman, M.D.	Director	March 10, 2014
<u>/s/ Steven E. Hall</u> Steven E. Hall, Ph.D.	Director	March 10, 2014

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<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ William T. McKee</u> William T. McKee	Director	March 10, 2014
<u>/s/ William H. Rastetter</u> William H. Rastetter, Ph.D.	Director	March 10, 2014
<u>/s/ Ram Sasisekharan</u> Ram Sasisekharan, Ph.D.	Director	March 10, 2014
<u>/s/ Robert I. Tepper</u> Robert I. Tepper, M.D.	Director	March 10, 2014

**Exhibit Index**

<b><u>Exhibit Number</u></b>	<b><u>Description of Exhibit</u></b>
1.1*	Underwriting Agreement
3.1	Certificate of Incorporation of the Registrant, as amended
3.2	Amended and Restated Bylaws of the Registrant
3.3	Form of Certificate of Incorporation of the Registrant (to be effective upon the closing of this offering)
3.4	Form of By-laws of the Registrant (to be effective upon the closing of this offering)
4.1*	Specimen Stock Certificate evidencing the shares of common stock
5.1*	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP
10.1	2007 Stock Incentive Plan, as amended
10.2	Form of Incentive Stock Option Agreement under 2007 Stock Incentive Plan
10.3	Form of Nonstatutory Stock Option Agreement under 2007 Stock Incentive Plan
10.4*	2014 Stock Incentive Plan
10.5*	Form of Incentive Stock Option Agreement under 2014 Stock Incentive Plan
10.6*	Form of Nonstatutory Stock Option Agreement under 2014 Stock Incentive Plan
10.7†	License Agreement, dated as of May 22, 2000, as amended, between California Institute of Technology and Insert Therapeutics, Inc.
10.8†	Exclusive Patent License Agreement, dated as of December 21, 2006, as amended, between the Registrant and Massachusetts Institute of Technology
10.9†	Patent License Agreement, dated as of August 31, 2007, as amended, between the Registrant and The Research Foundation of State University of New York, on behalf of University of Buffalo
10.10†	IT-101 Agreement, dated as of June 23, 2009, as amended, between the Registrant and Calando Pharmaceuticals, Inc.
10.11†	Platform Agreement, dated as of June 23, 2009, as amended, between the Registrant and Calando Pharmaceuticals, Inc.
10.12†	Letter Agreement, dated as of August 6, 2013, between the Registrant and California Institute of Technology
10.13	Second Series D Convertible Preferred Stock Purchase Agreement, dated November 30, 2012, as amended
10.14	Commercial Lease Agreement, dated September 8, 2009, between the Registrant and Rivertech Associates II, LLC
10.15	Loan and Security Agreement, entered into as of December 6, 2011, as amended, between the Registrant and Lighthouse Capital Partners VI, L.P.
10.16	Form of Indemnification Agreement between the Registrant and each of its Executive Officers and Directors
10.17	Employment Agreement, dated as of April 8, 2009, by and between Registrant and Oliver Fetzer

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<u>Exhibit Number</u>	<u>Description of Exhibit</u>
10.18	Warrant to purchase shares of Series B Convertible Preferred Stock issued by the Registrant to Silicon Valley Bank
10.19	Form of Stock Purchase Warrant of the Registrant to purchase shares of Series C Convertible Preferred Stock
10.20	Preferred Stock Purchase Warrant to purchase shares of Series D Convertible Preferred Stock issued by the Registrant to Lighthouse Capital Partners VI, L.P., as amended
10.21	Offer Letter, dated as of January 4, 2012, by and between Registrant and Christopher Guiffre
10.22	Offer Letter, dated as of April 23, 2011, by and between Registrant and Edward Garmey
10.23	Stock Option Agreement and Contingent Consideration Award Agreement, dated March 31, 2013, between the Registrant and Oliver Fetzer
10.24	Stock Option Agreement and Contingent Consideration Award Agreement, dated March 31, 2013, between the Registrant and Alan Crane
10.25	Change in Control Severance Plan
10.26*	2014 Employee Stock Purchase Plan
21.1	Subsidiaries of the Registrant
23.1	Consent of Deloitte & Touche LLP
23.2*	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on signature page)

\* To be filed by amendment.

† Confidential treatment requested as to certain portions, which portions have been omitted and filed separately with the Securities and Exchange Commission.

**AMENDED AND RESTATED  
CERTIFICATE OF INCORPORATION  
OF  
CERULEAN PHARMA INC.**

(Pursuant to Sections 242 and 245 of the  
General Corporation Law of the State of Delaware)

Cerulean Pharma Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "General Corporation Law"),

**DOES HEREBY CERTIFY:**

**1.** That the name of this corporation is Cerulean Pharma Inc. (the "Corporation"), and that the Corporation was originally incorporated pursuant to the General Corporation Law on November 28, 2005 under the name Tempo Pharmaceuticals, Inc. The original Certificate of Incorporation of the Corporation was amended on each of December 1, 2005, October 20, 2006, December 22, 2006, May 8, 2007, December 6, 2007, October 14, 2008, July 9, 2009, July 13, 2009, May 26, 2010, November 12, 2010 and December 2, 2011.

**2.** That the Board of Directors duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of the Corporation, as amended, declaring said amendment and restatement to be advisable and in the best interests of the Corporation and its stockholders, and authorizing the appropriate officers of the Corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

**RESOLVED**, that the Certificate of Incorporation, as amended, of the Corporation be amended and restated in its entirety to read as follows:

**FIRST:** The name of the Corporation is Cerulean Pharma Inc.

**SECOND:** The registered office of the Corporation in the State of Delaware is located at 2711 Centerville Road, Suite 400, in the City of Wilmington, County of New Castle 19808. The name of its registered agent at such address is Corporation Service Company.

**THIRD:** The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

**FOURTH:** The number of authorized shares of each class or series of stock of the Corporation, and the powers, preferences and rights, and the qualifications, limitations or restrictions thereof, shall be as follows:

## Section 1. CAPITAL STOCK

The total number of shares of all classes of stock which the Corporation shall have authority to issue is 220,894,772 shares consisting of 132,000,000 shares of common stock, \$0.0001 par value per share (the "Common Stock"), and 88,894,772 shares of preferred stock, \$0.01 par value per share (the "Preferred Stock").

## Section 2. COMMON STOCK

2.1. Voting Rights. The holders of shares of Common Stock shall be entitled to one vote for each share so held with respect to all matters voted on by the stockholders of the Corporation, subject in all cases to Sections 3.4 and 3.6 of this Article Fourth.

Except as otherwise provided in the Corporation's Certificate of Incorporation, the number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of shares of stock of the Corporation representing a majority of the votes represented by all outstanding shares of stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of Delaware.

2.2. Liquidation Right. Subject to the prior and superior right of the Preferred Stock, upon any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation, the holders of Common Stock shall be entitled to receive that portion of the remaining funds to be distributed to holders of Common Stock, subject to and as provided in Section 3.2 of this Article Fourth.

2.3. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor as, when and if declared by the Board of Directors subject to any preferential dividend rights of any then outstanding Preferred Stock, including as provided in Section 3.5 of this Article Fourth.

## Section 3. PREFERRED STOCK

3.1. Designation. Of the 88,894,772 shares of Preferred Stock, two million five hundred thousand (2,500,000) shares have been designated as Seed Convertible Preferred Stock (the "Seed Preferred Stock"), nine million three hundred seven thousand six hundred ninety two (9,307,692) shares have been designated Series A Convertible Preferred Stock (the "Series A Preferred Stock"), four million seventy seven thousand five hundred (4,077,500) shares have been designated Series B Convertible Preferred Stock (the "Series B Preferred Stock"), five million (5,000,000) shares have been designated Series B-1 Convertible Preferred Stock (the "Series B-1 Preferred Stock"), thirty three million three hundred ten thousand seven hundred eighty seven (33,310,787) shares have been designated Series C Convertible Preferred Stock (the "Series C Preferred Stock") and thirty four million six hundred ninety eight thousand seven hundred and ninety three (34,698,793) shares are hereby designated Series D Convertible Preferred Stock (the "Series D Preferred Stock").

### 3.2. Liquidation Rights.

(a) In the event of any Liquidating Event (as defined below), each holder of a share of Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets or surplus funds of the Corporation to the holders of Common Stock by reason of their ownership thereof, an amount per share of Seed Preferred Stock equal to the Seed Original Issue Price (as defined below), an amount per share of Series A Preferred Stock equal to the Series A Original Issue Price (as defined below), an amount per share of Series B Preferred Stock equal to the Series B Original Issue Price (as defined below), an amount per share of Series B-1 Preferred Stock equal to the Series B-1 Original Issue Price (as defined below), an amount per share of Series C Preferred Stock equal to the Series C Original Issue Price (as defined below), and an amount per share of Series D Preferred Stock equal to the Series D Original Issue Price (as defined below), plus an amount equal to any declared but unpaid dividends thereon to and including the date full payment shall be tendered to the holders of the Preferred Stock with respect to such liquidation, dissolution or winding up (the amounts payable pursuant to this sentence are hereinafter referred to as the "Seed Liquidation Amount," the "Series A Liquidation Amount," the "Series B Liquidation Amount," the "Series B-1 Liquidation Amount," the "Series C Liquidation Amount" and the "Series D Liquidation Amount" respectively, and collectively, the "Liquidation Amounts").

(b) If the assets or surplus funds to be distributed to the holders of the Preferred Stock pursuant to Section 3.2(a) are insufficient to permit the payment to such holders of their full Liquidation Amounts, the assets and surplus funds legally available for distribution shall be distributed ratably among the holders of the Preferred Stock in proportion to the full Liquidation Amount each such holder is otherwise entitled to receive under Section 3.2(a).

(c) All of the Liquidation Amounts to be paid to the holders of the Preferred Stock pursuant to this Section 3.2 in the event of a Liquidating Event shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any assets of the Corporation to, the holders of the Common Stock in connection with such Liquidating Event. Subject to the provisions of Section 3.2(d) below, after payment or the setting apart of payment to the holders of the Preferred Stock of the Liquidation Amounts so payable to them, all remaining assets available for distribution (after payment or provision for payment of all debts and liabilities of the Corporation) shall be distributed to the holders of the Common Stock and the Preferred Stock ratably in proportion to the number of shares of Common Stock they then hold, determined for this purpose as if each share of Preferred Stock had been converted voluntarily into Common Stock at the then-applicable Conversion Price (as defined below) immediately prior to such Liquidating Event, provided that no holder of any share of Preferred Stock shall receive any payment under this sentence of Section 3.2(c) with respect to such share to the extent that the aggregate of all payments with respect to such share under Section 3.2(a) and this sentence of Section 3.2(c) exceeds the product of two times the Liquidation Amount for such share of Preferred Stock.

(d) Notwithstanding anything in this Section 3.2 to the contrary, if a holder of any share of Preferred Stock would receive a greater amount pursuant to this Section 3.2 with respect to such share of Preferred Stock upon a Liquidating Event by voluntarily converting such share into Common Stock immediately prior to such Liquidating Event at the then-applicable



Conversion Price than such holder would be entitled to receive with respect to such share of Preferred Stock pursuant to this Section 3.2, then such holder shall not receive any Liquidation Amount with respect to such share under such Section 3.2(a), but shall be treated, for the purposes of determining such holder's rights with respect to such share under Sections 3.2(a) and 3.2(c) only, as though such holder had converted such share of Preferred Stock into Common Stock, effective immediately prior to the applicable Liquidating Event, at the then-applicable Conversion Price.

(e) A "Liquidating Event" shall mean (1) a liquidation, dissolution or winding up of the Corporation, either voluntary or involuntary, (2) a merger or consolidation in which either (I) the Corporation is a constituent party or (II) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation, except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (i) the surviving or resulting corporation or (ii) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation, or (3) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation; provided, however, that such a transaction shall not be regarded as a Liquidating Event and, to the extent applicable, all outstanding shares of Preferred Stock shall be treated under the provisions of Section 3.3(d)(vii) in lieu of this Section 3.2 in connection with such sale, merger or consolidation in the event that the holders of at least fifty-eight percent (58%) in voting power of the outstanding shares of Preferred Stock so elect, by written notice to the Corporation no later than fifteen (15) days before the effective date of such event.

(f) The Corporation shall not have the power to effect a Liquidating Event referred to in Section 3.2(e)(2)(I) unless the agreement or plan of merger or consolidation for such transaction (the "Merger Agreement") provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with this Section 3.2.

(g) In the event of a Liquidating Event referred to in Subsection 3.2(e)(2)(II) or 3.2(e)(3), if the Corporation does not effect a dissolution of the Corporation under the Delaware General Corporation Law within 90 days after such Liquidating Event, then (i) the Corporation shall send a written notice to each holder of Preferred Stock no later than the 90th day after the Liquidating Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (ii) to require the redemption of such shares of Preferred Stock, and (ii) if the holders of at least fifty-eight percent (58%) in voting power of the then-outstanding shares of Preferred Stock so request in a written

instrument delivered to the Corporation not later than 30 days after receipt of such written notice from the Corporation, the Corporation shall use the consideration received by the Corporation for such Liquidating Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation), together with any other assets of the Corporation available for distribution to its stockholders (the "Available Proceeds"), to the extent legally available therefor, on the 150th day after such Liquidating Event, to redeem all outstanding shares of Preferred Stock at a price per share equal to the amounts per share that each holder would be entitled to receive under this Section 3.2 upon a Liquidating Event in which the Available Proceeds were the amount available to the stockholders of the Corporation. Notwithstanding the foregoing, in the event of a redemption pursuant to the preceding sentence, if the Available Proceeds are not sufficient to redeem all outstanding shares of Preferred Stock, the Corporation shall redeem a pro rata portion of each holder's shares of Preferred Stock to the fullest extent of such Available Proceeds, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the Available Proceeds were sufficient to redeem all such shares, and shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor. The provisions of Section 3.7 shall apply, with such necessary changes in the details thereof as are necessitated by the context, to the redemption of the Preferred Stock pursuant to this Section 3.2(g). Prior to the distribution or redemption provided for in this Section 3.2(g), the Corporation shall not expend or dissipate the consideration received for such Liquidating Event, except to discharge expenses incurred in connection with such Liquidating Event.

(h) In the event of a Liquidating Event pursuant to Section 3.2(e)(2)(I), if any portion of the consideration payable to the stockholders of the Corporation is placed into escrow and/or is payable to the stockholders of the Corporation subject to contingencies, the Merger Agreement shall provide that (a) the portion of such consideration that is not placed in escrow and not subject to any contingencies (the "Initial Consideration") shall be allocated among the holders of capital stock of the Corporation in accordance with this Section 3.2 as if the Initial Consideration were the only consideration payable in connection with such Liquidating Event and (b) any additional consideration which becomes payable to the stockholders of the Corporation upon release from escrow or satisfaction of contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with this Section 3.2 after taking into account the previous payment of the Initial Consideration as part of the same transaction.

3.3. Conversion. The holders of Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Right to Convert.

(i) Each share of Seed Preferred Stock shall be convertible at the option of the holder thereof at any time after the date of issuance and without the payment of any additional consideration therefor into that number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Seed Original Issue Price (as defined below) by the Seed Conversion Price (as defined below) as adjusted pursuant to this Section 3.3 and in effect at the time of conversion. The "Seed Original Issue Price" shall mean \$0.80 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or

other similar recapitalization affecting such shares. Effective as of the Second Series D Original Issue Date (as defined below) and following the issuance of the Series D Preferred Stock at the Closing, as defined in that certain Second Series D Preferred Stock Purchase Agreement, dated on or about November 30, 2012, by and among the Corporation and the purchasers of shares of Series D Preferred Stock pursuant thereto (the "Second Series D Purchase Agreement"), the conversion price for the Seed Preferred Stock (the "Seed Conversion Price") is \$0.76. The Seed Conversion Price shall be subject to adjustment after the Second Series D Original Issue Date (in order to adjust the number of shares of Common Stock into which the Seed Preferred Stock is convertible) as hereinafter provided. Each person so converting shares of Seed Preferred Stock shall be entitled to all declared but unpaid dividends up to the time of the conversion. Such dividends shall be paid to each such person within thirty (30) days of the date of conversion.

(ii) Each share of Series A Preferred Stock shall be convertible at the option of the holder thereof, at any time after the date of issuance and without the payment of any additional consideration therefor into that number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series A Original Issue Price (as defined below) by the Series A Conversion Price (as defined below) as adjusted pursuant to this Section 3.3 and in effect at the time of the conversion. The "Series A Original Issue Price" shall mean \$1.30 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares. Effective as of the Second Series D Original Issue Date and following the issuance of the Series D Preferred Stock at the Closing, as defined in the Second Series D Purchase Agreement, the conversion price for the Series A Preferred Stock (the "Series A Conversion Price") is \$0.97. The Series A Conversion Price shall be subject to adjustment after the Second Series D Original Issue Date (in order to adjust the number of shares of Common Stock into which the Series A Preferred Stock is convertible) as hereinafter provided. Each person so converting shares of Series A Preferred Stock shall be entitled to all declared but unpaid dividends up to the time of the conversion. Such dividends shall be paid to each person within thirty (30) days of the date of conversion.

(iii) Each share of Series B Preferred Stock shall be convertible at the option of the holder thereof, at any time after the date of issuance and without the payment of any additional consideration therefor into that number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series B Original Issue Price (as defined below) by the Series B Conversion Price (as defined below) as adjusted pursuant to this Section 3.3 and in effect at the time of the conversion. The "Series B Original Issue Price" shall mean \$2.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares. Effective as of the Second Series D Original Issue Date and following the issuance of the Series D Preferred Stock at the Closing, as defined in the Second Series D Purchase Agreement, the conversion price for the Series B Preferred Stock (the "Series B Conversion Price") is \$1.22. The Series B Conversion Price shall be subject to adjustment after the Second Series D Original Issue Date (in order to adjust the number of shares of Common Stock into which the Series B Preferred Stock is convertible) as hereinafter provided. Each person so converting shares of Series B Preferred Stock shall be entitled to all declared but unpaid dividends up to the time of the conversion. Such dividends shall be paid to each person within thirty (30) days of the date of conversion.

(iv) Each share of Series B-1 Preferred Stock shall be convertible at the option of the holder thereof, at any time after the date of issuance and without the payment of any additional consideration therefor into that number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series B-1 Original Issue Price (as defined below) by the Series B-1 Conversion Price (as defined below) as adjusted pursuant to this Section 3.3 and in effect at the time of the conversion. The “Series B-1 Original Issue Price” shall mean \$2.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares. Effective as of the Second Series D Original Issue Date and following the issuance of the Series D Preferred Stock at the Closing, as defined in the Second Series D Purchase Agreement, the conversion price for the Series B-1 Preferred Stock (the “Series B-1 Conversion Price”) is \$0.74. The Series B-1 Conversion Price shall be subject to adjustment after the Second Series D Original Issue Date (in order to adjust the number of shares of Common Stock into which the Series B-1 Preferred Stock is convertible) as hereinafter provided. Each person so converting shares of Series B-1 Preferred Stock shall be entitled to all declared but unpaid dividends up to the time of the conversion. Such dividends shall be paid to each person within thirty (30) days of the date of conversion.

(v) Each share of Series C Preferred Stock shall be convertible at the option of the holder thereof, at any time after the date of issuance and without the payment of any additional consideration therefor into that number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series C Original Issue Price (as defined below) by the Series C Conversion Price (as defined below) as adjusted pursuant to this Section 3.3 and in effect at the time of the conversion. The “Series C Original Issue Price” shall mean \$0.74 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares. Effective as of the Second Series D Original Issue Date and following the issuance of the Series D Preferred Stock at the Closing, as defined in the Second Series D Purchase Agreement, the conversion price for the Series C Preferred Stock (the “Series C Conversion Price”) is \$0.74. The Series C Conversion Price shall be subject to adjustment after the Second Series D Original Issue Date (in order to adjust the number of shares of Common Stock into which the Series C Preferred Stock is convertible) as hereinafter provided. Each person so converting shares of Series C Preferred Stock shall be entitled to all declared but unpaid dividends up to the time of the conversion. Such dividends shall be paid to each person within thirty (30) days of the date of conversion.

(vi) Each share of Series D Preferred Stock shall be convertible at the option of the holder thereof, at any time after the date of issuance and without the payment of any additional consideration therefor into that number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series D Original Issue Price (as defined below) by the Series D Conversion Price (as defined below) as adjusted pursuant to this Section 3.3 and in effect at the time of the conversion. The “Series D Original Issue Price” shall mean \$0.83 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares. Effective as of the Second Series D Original Issue Date and following the issuance of the Series D Preferred Stock at the Closing, as defined in the Second Series D Purchase Agreement, the conversion price for the Series D Preferred Stock (the “Series D Conversion Price” and together with the Seed Conversion Price, the Series A Conversion Price, the Series B Conversion Price, the Series B-1

Conversion Price and the Series C Conversion Price, each a "Conversion Price" and together, the "Conversion Prices") is \$0.83. The Series D Conversion Price shall be subject to adjustment after the Second Series D Original Issue Date (in order to adjust the number of shares of Common Stock into which the Series D Preferred Stock is convertible) as hereinafter provided. Each person so converting shares of Series D Preferred Stock shall be entitled to all declared but unpaid dividends up to the time of the conversion. Such dividends shall be paid to each person within thirty (30) days of the date of conversion.

(b) Automatic Conversion. Each share of Preferred Stock shall automatically be converted into shares of Common Stock at the then-effective applicable Conversion Price upon:

(i) the closing of a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "Securities Act"), covering the offer and sale of Common Stock for the account of the Corporation to the public at a price of at least \$2.50 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock), resulting in at least \$30,000,000 of gross proceeds to the Corporation (a "Qualified IPO"); or

(ii) the written consent of holders in interest of at least fifty-eight percent (58%) in voting power of the Preferred Stock outstanding at that time.

The person(s) entitled to receive Common Stock issuable upon a conversion of Preferred Stock hereunder shall not be deemed to have converted the Preferred Stock until immediately prior to the closing of such offering or the receipt by the Corporation of such consent. Each person who holds of record Preferred Stock immediately prior to an automatic conversion shall be entitled to all declared but unpaid dividends up to the time of the automatic conversion. Such dividends shall be paid to all such holders within thirty (30) days of the automatic conversion.

(c) Mechanics of Conversion.

(i) No fractional shares of Common Stock shall be issued upon conversion of Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective applicable Conversion Price. Before any holder of Preferred Stock shall be entitled to convert the same into full shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Preferred Stock, and shall give written notice to the Corporation at such office that such holder elects to convert the same and shall state therein his name or the name or names of his nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued, together with the applicable federal taxpayer identification number. The Corporation shall, as soon as practicable thereafter, issue and deliver to such holder of Preferred Stock, or to his nominee or nominees, a certificate or certificates for the number of shares of Common Stock to which he shall be entitled, together with cash in lieu of any fraction of a share. Subject to Section 3.3(b) above, such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred

Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date.

(ii) If the conversion is in connection with an underwritten offering of securities pursuant to the Securities Act, the conversion may, at the option of any holder tendering shares of Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the person(s) entitled to receive the Common Stock upon conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities.

(d) Adjustments to Conversion Prices for Diluting Issues:

(i) Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(1) “Option” shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities (as defined below).

(2) “Second Series D Original Issue Date” shall mean the date on which the first share of Series D Preferred Stock was issued pursuant to the Second Series D Purchase Agreement.

(3) “Convertible Securities” shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(4) “Additional Shares of Common Stock” shall mean all shares of Common Stock issued (or, pursuant to Section 3.3(d)(iii), deemed to be issued) by the Corporation after the Second Series D Original Issue Date, other than the following shares of Common Stock, and shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (“Exempted Securities”):

(A) shares of Common Stock issued upon conversion of shares of Preferred Stock or shares of Common Stock issued by way of a dividend or distribution on shares of Preferred Stock;

(B) shares of Common Stock or Options to purchase shares of Common Stock, up to an aggregate of 15,900,000 shares of Common Stock, issued to officers, directors or employees of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to any stock purchase or option plan or other employee or director stock incentive or compensation agreement or program (each, a “Plan”) approved by the Board of Directors, including a majority of the Preferred Directors;

(C) shares of Common Stock, Options or Convertible Securities issued in consideration for the acquisition or licensing of technology or a corporate partnership

transaction, if approved by the Board of Directors, including a majority of the Preferred Directors not abstaining from voting on the matter;

(D) shares of Common Stock, Options or Convertible Securities issued pursuant to debt financing, equipment leasing or real property leasing transactions, if approved by the Board of Directors, including a majority of the Preferred Directors;

(E) shares of Common Stock issued to the public in connection with a Qualified IPO;

(F) shares of Common Stock, Options or Convertible Securities issued to suppliers or third party service providers in connection with the provision of goods or services pursuant to transactions approved by the Board of Directors, including a majority of the Preferred Directors;

(G) shares of Common Stock, Options or Convertible Securities issued (i) to a target corporation or its stockholders pursuant to the acquisition of such corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or (ii) pursuant to a joint venture agreement, provided that such issuances are approved by the Board of Directors, including a majority of the Preferred Directors not abstaining from voting on the matter;

(H) Preferred Stock issued or issuable upon the exercise of that certain Preferred Stock Purchase Warrant issued by the Corporation to Lighthouse Capital Partners VI, L.P. on December 6, 2011, as amended, and Common Stock issued or issuable upon the conversion of such Preferred Stock;

(I) Preferred Stock issued or issuable upon the exercise of that certain Warrant issued by the Corporation to Silicon Valley Bank on August 8, 2008, and Common Stock issued or issuable upon the conversion of such Preferred Stock;

(J) Preferred Stock issued or issuable upon the exercise of those certain Stock Purchase Warrants issued by the Corporation on May 26, 2010 and September 29, 2010, and Common Stock issued or issuable upon the conversion of such Preferred Stock; and

(K) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security as in effect as of the time of such issue.

(ii) No Adjustment of Conversion Prices.

(1) No adjustment in the Seed Conversion Price shall be made due to the issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of a majority of the then outstanding shares of Seed Preferred Stock agreeing that no such adjustment shall be made due to such issuance.

(2) No adjustment in the Series A Conversion Price shall be made due to the issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least sixty percent (60%) in voting power of the then outstanding Series A Preferred Stock agreeing that no such adjustment shall be made due to such issuance.

(3) No adjustment in the Series B Conversion Price shall be made due to the issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least sixty percent (60%) in voting power of the then outstanding Series B Preferred Stock agreeing that no such adjustment shall be made due to such issuance.

(4) No adjustment in the Series B-1 Conversion Price shall be made due to the issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least sixty percent (60%) in voting power of the then outstanding Series B-1 Preferred Stock agreeing that no such adjustment shall be made due to such issuance.

(5) No adjustment in the Series C Conversion Price shall be made due to the issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least sixty percent (60%) in voting power of the then outstanding Series C Preferred Stock agreeing that no such adjustment shall be made due to such issuance.

(6) No adjustment in the Series D Conversion Price shall be made due to the issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least sixty percent (60%) in voting power of the then outstanding Series D Preferred Stock agreeing that no such adjustment shall be made due to such issuance.

(iii) Deemed Issue of Additional Shares of Common Stock.

(1) Options and Convertible Securities. In the event the Corporation at any time or from time to time after the Second Series D Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities that are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(2) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to any Conversion Price pursuant to the terms of Section 3.3(d)(iv), are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (x) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or



Convertible Security or (y) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Prices computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Prices as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this Section 3.3(d)(iii)(2) shall have the effect of increasing the Conversion Price for any series of Preferred Stock to an amount which exceeds the lower of (i) the Conversion Price for such series of Preferred Stock in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price for such series of Preferred Stock that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(3) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to a Conversion Price pursuant to the terms of Section 3.3(d)(iv) (either because the consideration per share (determined pursuant to Section 3.3(d)(v)) of the Additional Shares of Common Stock subject thereto was equal to or greater than such Conversion Price then in effect, or because such Option or Convertible Security was issued before the Second Series D Original Issue Date), are revised after the Second Series D Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Section 3.3(d)(iii)(1)) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(4) If a record date shall have been fixed for the determination of holders of any class of securities entitled to receive any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities), and such Options or Convertible Securities are not issued on the date fixed therefor, any adjustment previously made in any Conversion Price which became effective on such record date shall be canceled as of the close of business as of such record date, and thereafter each Conversion Price shall be adjusted pursuant to the terms of this Section 3.3(d)(iii) as of the actual date of issuance of such Options or Convertible Securities.

(5) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to any Conversion Price pursuant to the terms of Section 3.3(d)(iv), such Conversion Price shall be readjusted to

such Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(6) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to any Conversion Price provided for in this Section 3.3(d)(iii) shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Section 3.3(d)(iii)). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to a Conversion Price that would result under the terms of this Section 3.3(d)(iii) at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to such Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

(7) Stock Dividends, Stock Distributions and Subdivisions. In the event the Corporation at any time or from time to time after the Second Series D Original Issue Date shall declare or pay any dividend or make any other distribution on the Common Stock payable in Common Stock or in any right to acquire Common Stock for no consideration, or effect a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in Common Stock), then and in any such event, Additional Shares of Common Stock shall not be deemed to have been issued pursuant to Section 3.3(d)(iv), but the Seed Conversion Price, Series A Conversion Price, Series B Conversion Price, Series B-1 Conversion Price, Series C Conversion Price or Series D Conversion Price, as the case may be, shall be adjusted in accordance with Section 3.3(d)(vi).

(iv) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock.

(1) In the event the Corporation shall at any time after the Second Series D Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 3.3(d)(iii)(1)) without consideration or for a consideration per share less than the Seed Conversion Price in effect on the date of and immediately prior to such issue, then and in such event, such Seed Conversion Price shall be reduced, concurrently with such issue in order to increase the number of shares of Common Stock into which the Seed Preferred Stock is convertible, to a price (calculated to the nearest cent) determined by dividing (A) (i) the Seed Conversion Price in effect immediately prior to such issue multiplied by the number of shares of Common Stock outstanding immediately prior to such issue (including all shares of Common Stock issuable upon exercise or conversion of any outstanding Options, Convertible Securities and shares of the Preferred Stock), plus (ii) the aggregate consideration received by the Corporation for the total number of

Additional Shares of Common Stock so issued, by (B) (i) the number of shares of Common Stock outstanding immediately prior to such issue (including all shares of Common Stock issuable upon exercise or conversion of any outstanding Options, Convertible Securities and shares of Preferred Stock), plus (ii) the total number of such Additional Shares of Common Stock so issued, provided that the Seed Conversion Price shall not be so reduced at such time if the amount of such reduction would be an amount less than \$0.01, but any such amount shall be carried forward and any reduction with respect thereto shall be made at the time of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$0.01 or more.

(2) In the event the Corporation shall at any time after the Second Series D Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 3.3(d)(iii)(1)) without consideration or for a consideration per share less than the Series A Conversion Price in effect on the date of and immediately prior to such issue, then and in such event, such Series A Conversion Price shall be reduced, concurrently with such issue in order to increase the number of shares of Common Stock into which the Series A Preferred Stock is convertible, to a price (calculated to the nearest cent) determined by dividing (A) (i) the Series A Conversion Price in effect immediately prior to such issue multiplied by the number of shares of Common Stock outstanding immediately prior to such issue (including all shares of Common Stock issuable upon exercise or conversion of any outstanding Options, Convertible Securities and shares of the Preferred Stock), plus (ii) the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued, by (B) (i) the number of shares of Common Stock outstanding immediately prior to such issue (including all shares of Common Stock issuable upon exercise or conversion of any outstanding Options, Convertible Securities and shares of Preferred Stock), plus (ii) the total number of such Additional Shares of Common Stock so issued, provided that the Series A Conversion Price shall not be so reduced at such time if the amount of such reduction would be an amount less than \$0.01, but any such amount shall be carried forward and any reduction with respect thereto shall be made at the time of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$0.01 or more.

(3) In the event the Corporation shall at any time after the Second Series D Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 3.3(d)(iii)(1)) without consideration or for a consideration per share less than the Series B Conversion Price in effect on the date of and immediately prior to such issue, then and in such event, such Series B Conversion Price shall be reduced, concurrently with such issue in order to increase the number of shares of Common Stock into which the Series B Preferred Stock is convertible, to a price (calculated to the nearest cent) determined by dividing (A) (i) the Series B Conversion Price in effect immediately prior to such issue multiplied by the number of shares of Common Stock outstanding immediately prior to such issue (including all shares of Common Stock issuable upon exercise or conversion of any outstanding Options, Convertible Securities and shares of the Preferred Stock), plus (ii) the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued, by (B) (i) the number of shares of Common Stock outstanding immediately prior to such issue (including all shares of Common Stock issuable upon exercise or conversion of any outstanding Options, Convertible Securities

and shares of Preferred Stock), plus (ii) the total number of such Additional Shares of Common Stock so issued, provided that the Series B Conversion Price shall not be so reduced at such time if the amount of such reduction would be an amount less than \$0.01, but any such amount shall be carried forward and any reduction with respect thereto shall be made at the time of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$0.01 or more.

(4) In the event the Corporation shall at any time after the Second Series D Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 3.3(d)(iii)(1)) without consideration or for a consideration per share less than the Series B-1 Conversion Price in effect on the date of and immediately prior to such issue, then and in such event, such Series B-1 Conversion Price shall be reduced, concurrently with such issue in order to increase the number of shares of Common Stock into which the Series B-1 Preferred Stock is convertible, to a price (calculated to the nearest cent) determined by dividing (A)(i) the Series B-1 Conversion Price in effect immediately prior to such issue multiplied by the number of shares of Common Stock outstanding immediately prior to such issue (including all shares of Common Stock issuable upon exercise or conversion of any outstanding Options, Convertible Securities and shares of Preferred Stock), plus (ii) the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued, by (B) (i) the number of shares of Common Stock outstanding immediately prior to such issue (including all shares of Common Stock issuable upon exercise or conversion of any outstanding Options, Convertible Securities and shares of Preferred Stock), plus (ii) the total number of such Additional Shares of Common Stock so issued, provided that the Series B-1 Conversion Price shall not be so reduced at such time if the amount of such reduction would be an amount less than \$0.01, but any such amount shall be carried forward and any reduction with respect thereto shall be made at the time of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$0.01 or more.

(5) In the event the Corporation shall at any time after the Second Series D Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 3.3(d)(iii)(1)) without consideration or for a consideration per share less than the Series C Conversion Price in effect on the date of and immediately prior to such issue, then and in such event, such Series C Conversion Price shall be reduced, concurrently with such issue in order to increase the number of shares of Common Stock into which the Series C Preferred Stock is convertible, to a price (calculated to the nearest cent) determined by dividing (A) (i) the Series C Conversion Price multiplied by the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock issuable upon conversion of any outstanding Options, Convertible Securities and shares of the Preferred Stock), plus (ii) the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued, by (B) (i) the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock issuable upon conversion of any outstanding Options, Convertible Securities and shares of Preferred Stock), plus (ii) the total number of such Additional Shares of Common Stock so issued, provided that the Series C Conversion Price shall not be so reduced at such time if the amount of such reduction would be an amount less than \$0.01, but any such amount shall be carried forward and any reduction with respect thereto shall be made at the time

of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$0.01 or more.

(6) In the event the Corporation shall at any time after the Second Series D Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 3.3(d)(iii)(1)) without consideration or for a consideration per share less than the Series D Conversion Price in effect on the date of and immediately prior to such issue, then and in such event, such Series D Conversion Price shall be reduced, concurrently with such issue in order to increase the number of shares of Common Stock into which the Series D Preferred Stock is convertible, to a price (calculated to the nearest cent) determined by dividing (A) (i) the Series D Conversion Price multiplied by the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock issuable upon conversion of any outstanding Options, Convertible Securities and shares of the Preferred Stock), plus (ii) the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued, by (B) (i) the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock issuable upon conversion of any outstanding Options, Convertible Securities and shares of Preferred Stock), plus (ii) the total number of such Additional Shares of Common Stock so issued, provided that the Series D Conversion Price shall not be so reduced at such time if the amount of such reduction would be an amount less than \$0.01, but any such amount shall be carried forward and any reduction with respect thereto shall be made at the time of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$0.01 or more.

(7) In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to any Conversion Price pursuant to the terms of this Section 3.3(d), then, upon the final such issuance, such Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

(v) Determination of Consideration. For purposes of this Section 3.3(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(1) Cash and Property. Such consideration shall:

(A) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation excluding amounts paid or payable for accrued interest or accrued dividends;

(B) insofar as it consists of property other than cash, be computed at the fair value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(C) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (A) and (B) above, as determined in good faith by the Board of Directors.

(2) Options and Convertible Securities. The aggregate consideration received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 3.3(d)(iii)(1), relating to Options and Convertible Securities, shall be determined by computing the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration until such subsequent adjustment occurs) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities. The total number of Additional Shares of Common Stock so issued shall be determined by calculating the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number until such subsequent adjustment occurs) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(vi) Adjustment for Dividends, Distributions, Subdivisions Combinations or Consolidation of Common Stock.

(1) Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Second Series D Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Conversion Price for each series of Preferred Stock in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying such Conversion Price then in effect by a fraction:

(A) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(B) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing, (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price for each series of Preferred Stock shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price for such series of Preferred

Stock shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of the Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

(2) Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Second Series D Original Issue Date effect a subdivision of the outstanding Common Stock, the Conversion Price for each series of Preferred Stock in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Second Series D Original Issue Date combine the outstanding shares of Common Stock, the Conversion Price for each series of Preferred Stock in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

(3) Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Second Series D Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 3.5 do not apply to such dividend or distribution, then and in each such event the holders of Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

(vii) Adjustment for Merger or Reorganization. Subject to provisions of Section 3.2 above, in case of any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not all shares of the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Section 3.3(d)(vi)), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock not so converted or exchanged shall thereafter be convertible into the number of shares of stock or other securities or property to which a holder of the number of shares of Common Stock of the Corporation deliverable upon conversion of such share of Preferred Stock would have been entitled upon such reorganization, recapitalization, reclassification, consolidation or merger. In any such case, appropriate adjustment (as determined in good faith by the Board of Directors) shall be made in the application of these provisions set forth with respect to the rights and interest thereafter of the holders of Seed Preferred Stock, Series A Preferred Stock, Series B

Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, to the end that these provisions (including provisions with respect to changes in and other adjustments of the applicable Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any shares of stock or other property thereafter deliverable upon the conversion of the Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock.

(e) No Impairment. The Corporation will not, by amendment of its Certificate of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation without the written consent of the holders of at least fifty-eight percent (58%) in voting power of the then outstanding shares of the series of Preferred Stock affected, but will at all times in good faith assist in the carrying out of all the provisions of this Section 3.3 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of Preferred Stock against impairment.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of any Conversion Price pursuant to this Section 3.3, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with these terms and furnish to each holder of Preferred Stock, as the case may be, a certificate setting forth such adjustment, readjustment or conversion and showing in detail the facts upon which such adjustment, readjustment or conversion is based, provided that the failure to promptly provide such notice shall not affect the effectiveness of such adjustment, or readjustment or conversion. The Corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Seed Conversion Price, Series A Conversion Price, Series B Conversion Price, Series B-1 Conversion Price, Series C Conversion Price or Series D Conversion Price, as the case may be, then in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock or Series D Preferred Stock, as the case may be.

(g) Notices of Record Date. In the event of (i) any taking by Corporation of a record date of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security, or (ii) any capital reorganization of the Corporation, any reclassification or recapitalization of the capital stock of the Corporation or any Liquidating Event, the Corporation shall mail to each holder of Preferred Stock at least ten (10) days prior to the record date or effective date for the event specified therein, a notice specifying (A) the date on which any such record is to be taken for the purpose of such dividend, distribution or right and a description of such dividend, distribution or right, (B) the date on which any such reorganization, reclassification, recapitalization or Liquidating Event is expected to become effective, and (C) the time, if any, that is to be fixed, as to when the holders of record of Common Stock (or other securities) shall be entitled to exchange their shares of Common Stock



(or other securities) for securities or other property deliverable upon such reorganization, reclassification, recapitalization or Liquidating Event.

(h) Common Stock Reserved. The Corporation shall reserve and keep available out of its authorized but unissued Common Stock, solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of shares of Common Stock as shall from time to time be sufficient to effect conversion of the Preferred Stock. If at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to its Certificate of Incorporation.

(i) Special Mandatory Conversion.

(i) Trigger Event. In the event that any holder of shares of Preferred Stock does not participate in a Qualified Financing (as defined below) by purchasing in the aggregate such holder's Pro Rata Amount (as defined below) of the Qualified Financing within the time period specified by the Corporation (provided that the Corporation has sent to each holder of Preferred Stock at least fifteen (15) business days written notice of, and the opportunity to purchase its Pro Rata Amount of, the Qualified Financing), then the Applicable Portion (as defined below) of the shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and/or Series D Preferred Stock held by such holder shall automatically, and without any further action on the part of such holder, be converted into shares of Common Stock at the Seed Conversion Price, Series A Conversion Price, Series B Conversion Price, Series B-1 Conversion Price, Series C Conversion Price or Series D Conversion Price, as the case may be, in effect immediately prior to the consummation of such Qualified Financing, effective upon, subject to, and concurrently with, the consummation of the Qualified Financing. For purposes of determining the number of shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock owned by a holder, and for determining the number of Offered Securities (as defined below) a holder of Preferred Stock has purchased in a Qualified Financing, all shares of Preferred Stock held by Affiliates (as defined below) of such holder shall be aggregated with such holder's shares and all Offered Securities purchased by Affiliates of such holder shall be aggregated with the Offered Securities purchased by such holder (provided that no shares or securities shall be attributed to more than one entity or person within any such group of affiliated entities or persons). Such conversion is referred to as a "Special Mandatory Conversion."

(ii) Procedural Requirements. Upon a Special Mandatory Conversion, each holder of shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock converted pursuant to Section 3.3(i) shall be sent written notice of such Special Mandatory Conversion and the place designated for mandatory conversion of all such shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock or Series D Preferred Stock pursuant to this Section 3.3. Upon receipt

of such notice, each holder of such shares of Preferred Stock shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Section 3.3(i)(i), including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the time of the Special Mandatory Conversion (notwithstanding the failure of the holder or holders thereof to surrender the certificates for such shares at or prior to such time), except only the rights of the holders thereof, upon surrender of their certificate or certificates therefor (or lost certificate affidavit and agreement), to receive the items provided for in the next sentence of this Section 3.3(i)(ii). As soon as practicable after the Special Mandatory Conversion and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock so converted, the Corporation shall issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, together with cash as provided in Section 3.3(c) in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock converted and a new certificate for the number of shares, if any, of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock represented by such surrendered certificate and not converted pursuant to Section 3.3(i)(i). Such converted Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock accordingly.

(iii) Definitions. For purposes of this Section 3.3(i), the following definitions shall apply:

(1) “Affiliate” shall mean, with respect to any holder of shares of Preferred Stock, any person, entity or firm which, directly or indirectly, controls, is controlled by or is under common control with such holder, including, without limitation, any entity of which the holder is a partner or member, any partner, officer, director, member or employee of such holder and any venture capital fund now or hereafter existing of which the holder is a partner or member which is controlled by or under common control with one or more general partners of such holder or shares the same management company with such holder.

(2) “Applicable Portion” shall mean, with respect to any holder of shares of Preferred Stock, a number of shares of Preferred Stock calculated by multiplying the aggregate number of shares of Preferred Stock held by such holder immediately prior to a Qualified Financing by a fraction, the numerator of which is equal to the amount, if positive, by which such holder’s Pro Rata Amount exceeds the number of Offered Securities actually purchased by such holder in such Qualified Financing, and the denominator of which is equal to such holder’s Pro Rata Amount.

(3) “Offered Securities” shall mean the equity securities of the Corporation set aside by the Board of Directors of the Corporation for purchase by holders of outstanding shares of Preferred Stock in connection with a Qualified Financing, and offered to such holders.

(4) “Pro Rata Amount” shall mean, with respect to any holder of Preferred Stock, the lesser of (a) a number of Offered Securities calculated by multiplying the aggregate number of Offered Securities by a fraction, the numerator of which is equal to the number of shares of Common Stock issuable upon conversion of all shares of Preferred Stock then owned by such holder, and the denominator of which is equal to the aggregate number of outstanding shares of Common Stock (for the purpose of this definition, treating all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such Qualified Financing or upon conversion of Convertible Securities outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such Qualified Financing as outstanding), or (b) the maximum number of Offered Securities that such holder is permitted by the Corporation to purchase in such Qualified Financing, after giving effect to any cutbacks or limitations established by the Board of Directors and applied on a pro rata basis to all holders of Preferred Stock.

(5) “Qualified Financing” shall mean any transaction involving the issuance or sale of Additional Shares of Common Stock on or after the Second Series D Original Issue Date that is determined by the Board of Directors to be a “Qualified Financing.”

(j) Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the effective time of such conversion, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Section 3.3(c)(i) and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series of Preferred Stock, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of such series of Preferred Stock accordingly.

(k) Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of

shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

#### 3.4. Voting Rights.

(a) The holders of shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock shall be entitled to notice of any stockholders' meeting and to vote upon any matter submitted to a stockholder for a vote (whether at a meeting or by written consent in lieu of meeting), as though the Common Stock, Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock constituted a single class of stock, except with respect to those matters on which the Delaware General Corporation Law requires that a vote must be by a separate class or classes or by separate series, as to which each such class or series shall have the right to vote in accordance with such law, and except as provided in Sections 2.1 and 3.4(b) and (c), on the following basis: holders of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock shall have that number of votes per share as is equal to the number of shares of Common Stock into which each such share of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, as the case may be, held by such holder is then convertible.

(b) Any provision of the by-laws of the Corporation to the contrary notwithstanding, the number of directors constituting the entire Board of Directors of the Corporation shall initially be fixed at seven (7) and may not be increased or decreased without the prior written consent of a majority of the Preferred Directors (as defined in Section 3.4(c) below).

(c) The Board of Directors shall not delegate any of its powers or duties to any committee of the Board of Directors without the consent of a majority of the Preferred Directors, and any committee of the Board of Directors shall include the Series C Director (as defined below), except in the case of an ad-hoc or special committee where service of the Series C Director on such committee would, in the good faith judgment of the Board of Directors, present a conflict of interest on the part of the Series C Director.

(d) At all times during which shares of Seed Preferred Stock remain outstanding, the holders of the outstanding shares of Seed Preferred Stock shall have the exclusive right, separately from the Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, to elect one director of the Corporation (the "Seed Director"). The Seed Director shall be elected by the vote or written consent of the holders of a majority in voting power of the outstanding Seed Preferred Stock voting as a separate class. At all times during which shares of Series A Preferred Stock remain outstanding, the holders of the outstanding shares of Series A Preferred Stock shall have the exclusive right, separately from the Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series

D Preferred Stock, to elect one director of the Corporation (the "Series A Director"), which director shall be elected by the vote or written consent of the holders of at least sixty percent (60%) in voting power of the outstanding Series A Preferred Stock voting as a separate class. At all times during which shares of Series C Preferred Stock remain outstanding, the holders of the outstanding shares of Series C Preferred Stock shall have the exclusive right, separately from the Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock and Series D Preferred Stock, to elect one director of the Corporation (the "Series C Director"), which director shall be elected by the vote or written consent of the holders of at least sixty percent (60%) in voting power of the outstanding Series C Preferred Stock voting as a separate class. At all times during which shares of Series D Preferred Stock remain outstanding, the holders of the outstanding shares of Series D Preferred Stock shall have the exclusive right, separately from the Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock and Series C Preferred Stock, to elect one director of the Corporation (the "Series D Director" and, together with the Seed Director, the Series A Director and the Series C Director, the "Preferred Directors"), which director shall be elected by the vote or written consent of the holders of at least sixty percent (60%) in voting power of the outstanding Series D Preferred Stock voting as a separate class. If any Preferred Director shall cease to serve as a director for any reason, then a director to hold office for the unexpired term of such directorship may be elected by the holders of the Seed Preferred Stock in the case of the Seed Director, by the holders of the Series A Preferred Stock in the case of the Series A Director, by the holders of the Series C Preferred Stock in the case of the Series C Director and by the holders of the Series D Preferred Stock in the case of the Series D Director. A Preferred Director may be removed, with or without cause, and a replacement Preferred Director may be elected in his or her stead, at any time by the affirmative vote at a meeting of stockholders called for the purpose, or by written consent, of the holders of a majority of the then-outstanding shares of Seed Preferred Stock in the case of the Seed Director, by the holders of at least sixty percent (60%) in voting power of the then outstanding shares of Series A Preferred Stock in the case of the Series A Director, by the holders of at least sixty percent (60%) in voting power of the then outstanding shares of Series C Preferred Stock in the case of the Series C Director and by the holders of at least sixty percent (60%) in voting power of the then outstanding shares of Series D Preferred Stock in the case of the Series D Director.

### 3.5. Dividend Right.

(a) The holders of outstanding Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock shall be entitled to receive, out of funds legally available therefor, prior and in preference to any dividend paid on the Seed Preferred Stock or the Common Stock, cash dividends at the rate of (i) in the case of the Series A Preferred Stock, eight percent (8%) of the Series A Original Issue Price per annum on each outstanding share of Series A Preferred Stock, (ii) in the case of the Series B Preferred Stock, eight percent (8%) of the Series B Original Issue Price per annum on each outstanding share of Series B Preferred Stock, (iii) in the case of the Series B-1 Preferred Stock, eight percent (8%) of the Series B-1 Original Issue Price per annum on each outstanding share of Series B-1 Preferred Stock, (iv) in the case of the Series C Preferred Stock, eight percent (8%) of the Series C Original Issue Price per annum on each outstanding share of Series C Preferred Stock and (v) in the case of the Series D Preferred Stock, eight percent (8%) of the Series D Original Issue Price per annum on each outstanding share of Series D Preferred Stock.

Such dividends shall be payable when, as and if declared by the Board of Directors and before any dividend is declared, paid or set aside on any shares of Common Stock or Seed Preferred Stock.

(b) The holders of outstanding Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock shall be entitled to receive a dividend (determined on the basis of the number of shares of Common Stock into which a share of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, as the case may be is then convertible) equal to any dividend paid on Common Stock (other than dividends payable solely in shares of Common Stock). Such dividends on Common Stock, if any, shall be payable when, as and if declared by the Board of Directors and before any dividend is declared, paid or set aside on any shares of Common Stock or Seed Preferred Stock.

(c) Any declared and unpaid dividend shall be payable on liquidation, conversion or redemption in accordance with Sections 3.2, 3.3 or 3.7.

(d) In the event the Corporation shall declare a distribution on the Common Stock payable in securities of other persons, evidences of indebtedness issued by the Corporation or other persons, assets (excluding cash dividends) or options or rights to purchase any such securities or evidences of indebtedness, then, in each such case the holders of the Preferred Stock shall be entitled to a proportionate share of any such distribution as though the holders of the Preferred Stock were the holders of the number of shares of Common Stock of the Corporation into which their respective shares of Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of the Corporation entitled to receive such distribution.

3.6. Covenants. In addition to Section 3.4 and any vote which the Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and/or Series D Preferred Stock may have under Delaware law, so long as at least ten percent (10%) of the shares of Preferred Stock outstanding as of the Second Series D Original Issue Date shall be outstanding, the Corporation shall not (whether by amendment, merger, or otherwise), without first obtaining the affirmative vote or written consent of at least fifty-eight percent (58%) in voting power of all then-outstanding shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, voting together as a single class:

(a) amend or repeal any provision of, or add any provision to, the Corporation's Certificate of Incorporation or by-laws;

(b) authorize or effect a change of control, Liquidating Event or other merger or consolidation, reincorporation, recapitalization, consolidation, share exchange, reorganization or other similar transaction involving the Corporation;

(c) authorize or effect any sale, lease, license or other transfer or disposition of all or substantially all of the Corporation's assets;

(d) create or authorize the creation of, or issue or obligate itself to issue shares of, or reclassify any shares of capital stock into, any class or series of stock having rights of redemption, liquidation preference, voting or dividend rights on parity with or having preference over any series of the Preferred Stock or any Options or Convertible Securities exercisable for or convertible into shares of any such class or series of stock;

(e) effect any acquisition of (i) the capital stock of another entity which results in the consolidation of that entity into the results of operations of the Corporation or (ii) all or substantially all of the assets of another entity;

(f) incur any indebtedness for borrowed money in an amount in excess of \$500,000;

(g) create or adopt a new plan for the grant of stock options or the issuance of restricted stock to employees, consultants, directors, or officers of the Corporation or increase the number of shares available under any such existing plan;

(h) pay or declare any dividend or distribution on any shares of the Corporation's capital stock (except dividends payable solely in shares of Common Stock), or apply any of the Corporation's assets to the redemption or repurchase of the Corporation's capital stock (except for acquisitions of Common Stock by the Corporation from former employees, consultants or other service providers pursuant to agreements in a form approved by the Board of Directors which permit the Corporation to repurchase such shares at cost (or the lesser of cost or fair market value) upon termination of services to the Corporation or acquisitions of Common Stock in exercise of the Corporation's right of first refusal to repurchase such shares;

(i) increase or decrease the authorized number of directors of the Corporation, except as permitted by Section 3.4(b) hereof;

(j) enter into, agree to enter into or execute any transaction with any officer, director or affiliate of the Corporation (as such term is defined in the regulations promulgated under the Securities Act) unless approved by a disinterested majority of the Board of Directors;

(k) authorize or effect any change in the fundamental business of the Corporation, which is currently the discovery and development of human therapeutics;

(l) authorize or undertake any public offering of any securities of the Corporation other than in a Qualified IPO;

(m) allow any family member, or spouse thereof, of a stockholder or an officer of the Corporation to be employed by the Corporation as an employee, consultant, advisor or other service provider without prior approval of the Audit Committee of the Board of Directors; or

(n) permit any wholly-owned subsidiary to undertake any of the actions described in Sections 3.6(a) through 3.6(m) unless approved by the Board of Directors, including a majority of the Preferred Directors not abstaining from voting on the matter.

### 3.7. Redemption.

(a) Redemption. Shares of Preferred Stock shall be redeemed by the Corporation out of funds lawfully available therefor at a price per share equal to the Seed Original Issue Price, the Series A Original Issue Price, the Series B Original Issue Price, the Series B-1 Original Issue Price, the Series C Original Issue Price or the Series D Original Issue Price, as applicable, plus all declared but unpaid dividends thereon (the “Redemption Price”), in three annual installments commencing not more than 30 days after receipt by the Corporation at any time on or after the fifth anniversary of the Second Series D Original Issue Date, from the holders of at least fifty-eight percent (58%) in voting power of the then-outstanding shares of Preferred Stock, of written notice requesting redemption of all shares of Preferred Stock. The date of each such installment shall be referred to as a “Redemption Date”. On each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Preferred Stock owned by each holder, that number of outstanding shares of Preferred Stock determined by dividing (i) the total number of shares of Preferred Stock outstanding immediately prior to such Redemption Date by (ii) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies); provided, however, that Excluded Shares (as defined below) shall not be redeemed and shall be excluded from the calculations set forth in this sentence. If the Corporation does not have sufficient funds legally available to redeem on any Redemption Date all shares of Preferred Stock to be redeemed on such Redemption Date, the Corporation shall redeem a pro rata portion of each holder’s redeemable shares of such capital stock out of funds legally available therefor, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the legally available funds were sufficient to redeem all such shares, and shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor.

(b) Redemption Notice. The Corporation shall send written notice of the mandatory redemption (the “Redemption Notice”) to each holder of record of Preferred Stock not less than 10 days prior to each Redemption Date. Each Redemption Notice shall state:

(i) the number of shares of Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice;

(ii) the Redemption Date and the Redemption Price;

(iii) the then-applicable rate at which the shares of Preferred Stock held by each holder may be converted into Common Stock prior to such Redemption Date; and

(iv) that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Preferred Stock to be redeemed.

If the Corporation receives, on or prior to the 5th day after the date of delivery of the Redemption Notice to a holder of Preferred Stock, written notice from such holder that such holder elects to be excluded from the redemption provided in this Section 3.7, then the shares of Preferred Stock registered on the books of the Corporation in the name of such holder at the time of the Corporation’s receipt of such notice shall thereafter be “Excluded Shares”. Excluded



Shares shall not be redeemed or redeemable pursuant to this Section 3.7, whether on such Redemption Date or thereafter.

(c) Surrender of Certificates; Payment. On or before the applicable Redemption Date, each holder of shares of Preferred Stock to be redeemed on such Redemption Date, unless such holder has exercised his, her or its right to convert such shares as provided in Section 3.3, shall surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof. In the event less than all of the shares of Preferred Stock represented by a certificate are redeemed, a new certificate representing the unredeemed shares of Preferred Stock shall promptly be issued to such holder.

(d) Rights Subsequent to Redemption. If the Redemption Notice shall have been duly given, and if on the applicable Redemption Date the Redemption Price payable upon redemption of the shares of Preferred Stock to be redeemed on such Redemption Date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor in a timely manner, then notwithstanding that the certificates evidencing any of the shares of Preferred Stock so called for redemption shall not have been surrendered, dividends with respect to such shares of Preferred Stock shall cease to accrue after such Redemption Date and all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Redemption Price without interest upon surrender of their certificate or certificates therefor.

3.8. Converted, Redeemed or Otherwise Acquired Shares. Any share of Preferred Stock that is converted under Section 3.3, or redeemed or otherwise acquired by the Corporation, will be canceled and will not be reissued, sold or transferred.

3.9. Residual Rights. All rights accruing to the outstanding shares of the Corporation not expressly provided for to the contrary shall be vested in the Common Stock.

3.10. Waiver. Any of the rights of the holders of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock set forth herein may be waived by the affirmative consent or vote of the holders of shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock representing at least fifty-eight percent (58%) in voting power of the shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock then outstanding, considered as a single class on an as-converted basis, provided such waiver by its terms is equally applicable to the holders of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock. Any of the rights of the holders of Seed Preferred Stock set forth herein may be waived (in a manner that does not apply to the holders of

Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock or Series D Preferred Stock) by the affirmative consent or vote of the holders of at least a majority of the shares of Seed Preferred Stock then outstanding. Any of the rights of the holders of Series A Preferred Stock set forth herein may be waived (in a manner that does not apply to the holders of Seed Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock or Series D Preferred Stock) by the affirmative consent or vote of the holders of at least sixty percent (60%) of the shares of Series A Preferred Stock then outstanding. Any of the rights of the holders of Series B Preferred Stock set forth herein may be waived (in a manner that does not apply to the holders of Seed Preferred Stock, Series A Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock or Series D Preferred Stock) by the affirmative consent or vote of the holders of at least sixty percent (60%) of the shares of Series B Preferred Stock. Any of the rights of the holders of Series B-1 Preferred Stock set forth herein may be waived (in a manner that does not apply to the holders of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock or Series D Preferred Stock) by the affirmative consent or vote of the holders of at least sixty percent (60%) of the shares of Series B-1 Preferred Stock. Any of the rights of the holders of Series C Preferred Stock set forth herein may be waived (in a manner that does not apply to the holders of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock or Series D Preferred Stock) by the affirmative consent or vote of the holders of at least sixty percent (60%) in voting power of the shares of Series C Preferred Stock. Any of the rights of the holders of Series D Preferred Stock set forth herein may be waived (in a manner that does not apply to the holders of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock or Series C Preferred Stock) by the affirmative consent or vote of the holders of at least sixty percent (60%) in voting power of the shares of Series D Preferred Stock.

**FIFTH:** The election of directors need not be by written ballot unless the by-laws of the Corporation shall so require.

**SIXTH:** In furtherance and not in limitation of the power conferred upon the Board of Directors by law, the Board of Directors shall have power to make, adopt, alter, amend and repeal from time to time by-laws of the Corporation, subject to the right of the stockholders entitled to vote with respect thereto to alter and repeal by-laws made by the Board of Directors.

**SEVENTH:** A director of the Corporation shall not be liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent that exculpation from liability is not permitted under the General Corporation Law as in effect at the time such liability is determined. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article SEVENTH to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended. No amendment or repeal of this Article SEVENTH shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal.

**EIGHTH:** The Corporation shall, to the maximum extent permitted from time to time under the General Corporation Law, indemnify and upon request advance expenses to any person who is or was a party or is threatened to be made a party to any threatened, pending or completed action, suit, proceeding or claim, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was or has agreed to be a director or officer of the Corporation or while a director or officer is or was serving at the request of the Corporation as a director, officer, partner, trustee, employee or agent of any corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against expenses (including attorney's fees and expenses), judgments, fines, penalties and amounts paid in settlement incurred (and not otherwise recovered) in connection with the investigation, preparation to defend or defense of such action, suit, proceeding or claim; provided, however, that the foregoing shall not require the Corporation to indemnify or advance expenses to any person in connection with any action, suit, proceeding, claim or counterclaim initiated by or on behalf of such person. Such indemnification shall not be exclusive of other indemnification rights arising under any by-law, agreement, vote of directors or stockholders or otherwise and shall inure to the benefit of the heirs and legal representatives of such person. Any person seeking indemnification under this Article EIGHTH shall be deemed to have met the standard of conduct required for such indemnification unless the contrary shall be established. Any repeal or modification of the foregoing provisions of this Article EIGHTH shall not adversely affect any right or protection of a director or officer of the Corporation with respect to any acts or omissions of such director or officer occurring prior to such repeal or modification.

**NINTH:** The Corporation renounces any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "Excluded Opportunity" is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, "Covered Persons"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation.

**TENTH:** The books of the Corporation may (subject to any statutory requirements) be kept outside the State of Delaware as may be designated by the Board of Directors or in the by-laws of the Corporation.

**ELEVENTH:** If at any time the Corporation shall have a class of stock registered pursuant to the provisions of the Securities Exchange Act of 1934, for so long as such class is so registered, any action by the stockholders of such class must be taken at an annual or special meeting of stockholders and may not be taken by written consent.

**3.** That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of the Corporation in accordance with Section 228 of the General Corporation Law.

4. That this Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of the Corporation's Certificate of Incorporation, as amended, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

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**IN WITNESS WHEREOF**, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of the Corporation on the 29th day of November, 2012.

By: /s/ Jean Silveri  
Jean Silveri  
Senior Vice President, General Counsel and Secretary

CERTIFICATE OF AMENDMENT  
OF  
CERTIFICATE OF INCORPORATION  
OF  
CERULEAN PHARMA INC.

Cerulean Pharma Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), DOES HEREBY CERTIFY AS FOLLOWS:

The Board of Directors of the Corporation duly adopted by written consent, pursuant to Sections 141(f) and 242 of the General Corporation Law of the State of Delaware, a resolution setting forth an amendment to the Certificate of Incorporation of the Corporation and declaring said amendment advisable. The stockholders of the Corporation duly approved said proposed amendment by written consent in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware. The resolution setting forth the amendment is as follows:

RESOLVED: That Article FOURTH Section 3.3(d)(i)(4)(B) of the Certificate of Incorporation, as amended, of the Corporation be and hereby is deleted in its entirety and the following Article FOURTH Section 3.3(d)(i)(4)(B) is inserted in lieu thereof:

(B) shares of Common Stock or Options to purchase shares of Common Stock, up to an aggregate of 16,900,000 shares of Common Stock, issued to officers, directors or employees of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to any stock purchase or option plan or other employee or director stock incentive or compensation agreement or program (each, a "Plan") approved by the Board of Directors, including a majority of the Preferred Directors;

IN WITNESS WHEREOF, this Certificate of Amendment has been executed by a duly authorized officer of the Corporation on the 11th day of January, 2013.

CERULEAN PHARMA INC.

By: /s/ Jean Silveri  
Jean Silveri  
Senior Vice President, General Counsel  
and Secretary

CERTIFICATE OF AMENDMENT  
OF  
CERTIFICATE OF INCORPORATION  
OF  
CERULEAN PHARMA INC.

Cerulean Pharma Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), DOES HEREBY CERTIFY AS FOLLOWS:

The Board of Directors of the Corporation duly adopted by written consent, pursuant to Sections 141(f) and 242 of the General Corporation Law of the State of Delaware, a resolution setting forth an amendment to the Certificate of Incorporation of the Corporation and declaring said amendment advisable. The stockholders of the Corporation duly approved said proposed amendment by written consent in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware. The resolution setting forth the amendment is as follows:

RESOLVED: That Article FOURTH Section 3.3(d)(i)(4)(B) of the Certificate of Incorporation, as amended, of the Corporation be and hereby is deleted in its entirety and the following Article FOURTH Section 3.3(d)(i)(4)(B) is inserted in lieu thereof:

(B) shares of Common Stock or Options to purchase shares of Common Stock, up to an aggregate of 18,200,000 shares of Common Stock, issued to officers, directors or employees of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to any stock purchase or option plan or other employee or director stock incentive or compensation agreement or program (each, a "Plan") approved by the Board of Directors, including a majority of the Preferred Directors;



IN WITNESS WHEREOF, this Certificate of Amendment has been executed by a duly authorized officer of the Corporation on the 19th day of February, 2013.

CERULEAN PHARMA INC.

By: /s/ Jean Silveri

Jean Silveri

Senior Vice President, General Counsel  
and Secretary

CERTIFICATE OF AMENDMENT  
OF  
CERTIFICATE OF INCORPORATION  
OF  
CERULEAN PHARMA INC.

Cerulean Pharma Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the “Corporation”), DOES HEREBY CERTIFY AS FOLLOWS:

The Board of Directors of the Corporation duly adopted resolutions by written consent in accordance with Section 141(f) of the General Corporation Law of the State of Delaware, setting forth an amendment to the Certificate of Incorporation of the Corporation and declaring said amendment advisable. The stockholders of the Corporation duly approved said proposed amendment by written consent in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware. The resolution setting forth the amendment is as follows:

RESOLVED: That Article FOURTH, Section 3.4(b) of the Certificate of Incorporation of the Corporation, as amended, be and hereby is deleted in its entirety and the following Article FOURTH, Section 3.4(b) is inserted in lieu thereof:

(b) Any provision of the by-laws of the Corporation to the contrary notwithstanding, the number of directors constituting the entire Board of Directors of the Corporation shall initially be fixed at eight (8) and may not be increased or decreased without the prior written consent of a majority of the Preferred Directors (as defined in Section 3.4(d) below).

RESOLVED: That Article FOURTH, Section 3.4(d) of the Certificate of Incorporation of the Corporation, as amended, be and hereby is deleted in its entirety and the following Article FOURTH, Section 3.4(d) is inserted in lieu thereof:

(d) At all times during which shares of Seed Preferred Stock remain outstanding, the holders of the outstanding shares of Seed Preferred Stock shall have the exclusive right, separately from the Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, to elect one director of the Corporation (the “Seed Director”). The Seed Director shall be elected by the vote or written consent of the holders of a majority in voting power of the outstanding Seed Preferred Stock voting as a separate class. At all times during which shares of Series A Preferred Stock remain outstanding, the holders of the outstanding shares of Series A Preferred Stock shall have the exclusive right, separately from the Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, to elect one director of the Corporation (the “Series A Director”), which director shall be elected by the vote or written consent of the holders of at least sixty percent (60%) in voting power of the outstanding Series A Preferred Stock voting as a separate class. At all times during which shares of Series C Preferred Stock remain outstanding, the holders of the outstanding shares of Series C Preferred Stock shall have the exclusive right, separately from the Common

Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock and Series D Preferred Stock, to elect one director of the Corporation (the "Series C Director"), which director shall be elected by the vote or written consent of the holders of at least sixty percent (60%) in voting power of the outstanding Series C Preferred Stock voting as a separate class. At all times during which shares of Series D Preferred Stock remain outstanding, the holders of the outstanding shares of Series D Preferred Stock shall have the exclusive right, separately from the Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock and Series C Preferred Stock, to elect two directors of the Corporation (the "Series D Directors" and, together with the Seed Director, the Series A Director and the Series C Director, the "Preferred Directors"), which directors shall each be elected by the vote or written consent of the holders of at least sixty percent (60%) in voting power of the outstanding Series D Preferred Stock voting as a separate class. If any Preferred Director shall cease to serve as a director for any reason, then a director to hold office for the unexpired term of such directorship may be elected by the holders of the Seed Preferred Stock in the case of the Seed Director, by the holders of the Series A Preferred Stock in the case of the Series A Director, by the holders of the Series C Preferred Stock in the case of the Series C Director and by the holders of the Series D Preferred Stock in the case of the Series D Directors. A Preferred Director may be removed, with or without cause, and a replacement Preferred Director may be elected in his or her stead, at any time by the affirmative vote at a meeting of stockholders called for the purpose, or by written consent, of the holders of a majority of the then-outstanding shares of Seed Preferred Stock in the case of the Seed Director, by the holders of at least sixty percent (60%) in voting power of the then outstanding shares of Series A Preferred Stock in the case of the Series A Director, by the holders of at least sixty percent (60%) in voting power of the then outstanding shares of Series C Preferred Stock in the case of the Series C Director and by the holders of at least sixty percent (60%) in voting power of the then outstanding shares of Series D Preferred Stock in the case of the Series D Directors.

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IN WITNESS WHEREOF, this Certificate of Amendment has been executed by a duly authorized officer of the Corporation on the 14th day of August, 2013.

CERULEAN PHARMA INC.

By: /s/ Jean Silveri

Jean Silveri

Senior Vice President, General Counsel and  
Secretary

CERTIFICATE OF AMENDMENT  
OF  
CERTIFICATE OF INCORPORATION  
OF  
CERULEAN PHARMA INC.

Cerulean Pharma Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), DOES HEREBY CERTIFY AS FOLLOWS:

The Board of Directors of the Corporation duly adopted, pursuant to Sections 141 and 242 of the General Corporation Law of the State of Delaware, resolutions setting forth amendments to the Certificate of Incorporation of the Corporation and declaring said amendments advisable. The stockholders of the Corporation duly approved said proposed amendments by written consent in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware. The resolutions setting forth the amendments are as follows:

RESOLVED: That Article FOURTH, Section 3.4(b) of the Certificate of Incorporation of the Corporation, as amended, be and hereby is deleted in its entirety and the following Article FOURTH, Section 3.4(b) is inserted in lieu thereof:

(b) Any provision of the by-laws of the Corporation to the contrary notwithstanding, the number of directors constituting the entire Board of Directors of the Corporation shall initially be fixed at ten (10) and may not be increased or decreased without the prior written consent of a majority of the Preferred Directors (as defined in Section 3.4(d) below).

RESOLVED: That Article FOURTH, Section 3.3(d)(i)(4)(B) of the Certificate of Incorporation, as amended, of the Corporation be and hereby is deleted in its entirety and the following Article FOURTH, Section 3.3(d)(i)(4)(B) is inserted in lieu thereof:

(B) shares of Common Stock or Options to purchase shares of Common Stock, up to an aggregate of 18,500,000 shares of Common Stock, issued to officers, directors or employees of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to any stock purchase or option plan or other employee or director stock incentive or compensation agreement or program (each, a "Plan") approved by the Board of Directors, including a majority of the Preferred Directors;

RESOLVED: That a new clause (vii) is added to Article FOURTH, Section 3.3(a) of the Certificate of Incorporation of the Corporation, as amended, which clause (vii) reads as follows:

(vii) Notwithstanding anything to the contrary contained herein, the holders of Preferred Stock shall not be entitled pursuant to this Section 3.3(a) to convert shares of Preferred Stock into shares of Common Stock commencing at the time of effectiveness of the filing of this Certificate of Amendment of Certificate of Incorporation and ending at 5:00 p.m.,

Boston, Massachusetts time on the date that is six months after the date of such effectiveness (the “Non-Conversion Period”), provided, however, that such Non-Conversion Period may be shortened or extended with the written consent of holders in interest of at least fifty-eight percent (58%) in voting power of the Preferred Stock outstanding at that time.

IN WITNESS WHEREOF, this Certificate of Amendment has been executed by a duly authorized officer of the Corporation on the 30 day of January, 2014.

CERULEAN PHARMA INC.

By: /s/ Oliver S. Fetzer

Oliver S. Fetzer

President and Chief Executive Officer

CERTIFICATE OF AMENDMENT  
OF  
CERTIFICATE OF INCORPORATION  
OF  
CERULEAN PHARMA INC.

Cerulean Pharma Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), DOES HEREBY CERTIFY AS FOLLOWS:

The Board of Directors of the Corporation duly adopted, pursuant to Sections 141 and 242 of the General Corporation Law of the State of Delaware, resolutions setting forth an amendment to the Certificate of Incorporation of the Corporation and declaring said amendment advisable. The stockholders of the Corporation duly approved said proposed amendment by written consent in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware. The resolution setting forth the amendment is as follows:

RESOLVED: That Article FOURTH, Section 3.3(i) of the Certificate of Incorporation of the Corporation, as amended, be and hereby is deleted in its entirety and the following Article FOURTH, Section 3.3(i) is inserted in lieu thereof:

(i) Special Mandatory Conversion.

(i) Trigger Event. In the event that any holder of shares of Preferred Stock does not participate in a Qualified Financing (as defined below) by purchasing in the aggregate such holder's Pro Rata Amount (as defined below) of the Qualified Financing within the time period specified by the Corporation (provided that the Corporation has sent to each holder of Preferred Stock written notice of, and the opportunity to purchase, within fifteen (15) days of such notice, its Pro Rata Amount of, the Qualified Financing), then all shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and/or Series D Preferred Stock held by such holder shall automatically, and without any further action on the part of such holder, be converted into shares of Common Stock at a conversion rate of one (1) share of Common Stock for each ten (10) shares of such series of Preferred Stock, effective upon, subject to, and concurrently with, the consummation of the Qualified Financing, provided, however, if such Qualified Financing is consummated prior to the end of the fifteen (15) day notice period provided for above, such conversion shall occur immediately following such fifteen (15) day period. For purposes of determining the number of shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock owned by a holder, and for determining the number of Offered Securities (as defined below) a holder of Preferred Stock has purchased in a Qualified Financing, all shares of Preferred Stock held by



Affiliates (as defined below) of such holder shall be aggregated with such holder's shares and all Offered Securities purchased by Affiliates of such holder shall be aggregated with the Offered Securities purchased by such holder (provided that no shares or securities shall be attributed to more than one entity or person within any such group of affiliated entities or persons). Such conversion is referred to as a "Special Mandatory Conversion."

(ii) Procedural Requirements. Upon a Special Mandatory Conversion, each holder of shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock converted pursuant to Section 3.3(i) shall be sent written notice of such Special Mandatory Conversion and the place designated for mandatory conversion of all such shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock or Series D Preferred Stock pursuant to this Section 3.3. Upon receipt of such notice, each holder of such shares of Preferred Stock shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Section 3.3(i)(i), including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the time of the Special Mandatory Conversion (notwithstanding the failure of the holder or holders thereof to surrender the certificates for such shares at or prior to such time), except only the rights of the holders thereof, upon surrender of their certificate or certificates therefor (or lost certificate affidavit and agreement), to receive the items provided for in the next sentence of this Section 3.3(i)(ii). As soon as practicable after the Special Mandatory Conversion and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock so converted, the Corporation shall issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, together with cash as provided in Section 3.3(c) in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock converted. Such converted Seed

Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Seed Preferred Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock and Series D Preferred Stock accordingly.

(iii) Definitions. For purposes of this Section 3.3(i), the following definitions shall apply:

(1) “Affiliate” shall mean, with respect to any holder of shares of Preferred Stock, (i) any person, entity or firm which, directly or indirectly, controls, is controlled by or is under common control with such holder, (ii) any entity of which such holder is a partner or member, (iii) any partner, officer, director, member or employee of such holder, (iv) any partner, officer, director, member or employee of an Affiliate of such holder and (v) any venture capital fund now or hereafter existing (x) of which such holder is a partner or member, (y) which is controlled by or under common control with one or more general partners of such holder, or (z) shares the same management company with such holder.

(2) “Offered Securities” shall mean the equity securities, or debt securities convertible (whether directly or indirectly) into equity securities, of the Corporation set aside by the Board of Directors of the Corporation for purchase by holders of outstanding shares of Preferred Stock in connection with a Qualified Financing, and offered to such holders.

(3) “Pro Rata Amount” shall mean, with respect to any holder of Preferred Stock, the lesser of (a) a number of Offered Securities calculated by multiplying the aggregate number of Offered Securities by a fraction, the numerator of which is equal to the number of shares of Common Stock issuable upon conversion of all shares of Preferred Stock (i) then owned by such holder and (ii) issuable to such holder upon exercise of any warrants to purchase shares of Preferred Stock then owned by such holder, and the denominator of which is equal to the aggregate number of shares of Common Stock issuable upon conversion of all shares of Preferred Stock (i) then owned by all holders of Preferred Stock and (ii) issuable to all holders of Preferred Stock upon exercise of any warrants to purchase shares of Preferred Stock then owned by all such holders, or (b) the maximum number of Offered Securities that such holder is permitted by the Corporation to purchase in such Qualified Financing, after giving effect to any cutbacks or limitations established by the Board of Directors and applied on a pro rata basis to all holders of Preferred Stock.

(4) “Qualified Financing” shall mean any transaction involving the issuance or sale of equity securities, or debt securities convertible (whether directly or indirectly) into equity securities, of the Corporation on or after the Second Series D Original Issue Date that is determined by the Board of Directors to be a “Qualified Financing.”

IN WITNESS WHEREOF, this Certificate of Amendment has been executed by a duly authorized officer of the Corporation on the 10th day of February, 2014.

CERULEAN PHARMA INC.

By: /s/ Oliver S. Fetzer

Oliver S. Fetzer

President and Chief Executive Officer

AMENDED AND RESTATED BY-LAWS

OF

CERULEAN PHARMA INC.

*Adopted by the Board of Directors on December 4, 2009*

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## ARTICLE I

### STOCKHOLDERS

1.1 Place of Meetings. All meetings of stockholders shall be held at such place as may be designated from time to time by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President or, if not so designated, at the principal office of the corporation. The Board of Directors may, in its sole discretion, determine that a meeting shall not be held at any place, but may instead be held solely by means of remote communication in a manner consistent with the General Corporation Law of the State of Delaware.

1.2 Annual Meeting. The annual meeting of stockholders for the election of directors and for the transaction of such other business as may properly be brought before the meeting shall be held on a date and at a time designated by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President (which date shall not be a legal holiday in the place where the meeting is to be held).

1.3 Special Meetings. Special meetings of stockholders for any purpose or purposes may be called at any time by only the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President, and may not be called by any other person or persons. The Board of Directors may postpone or reschedule any previously scheduled special meeting of stockholders. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.

1.4 Notice of Meetings. Except as otherwise provided by law, notice of each meeting of stockholders, whether annual or special, shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. Without limiting the manner by which notice otherwise may be given to stockholders, any notice shall be effective if given by a form of electronic transmission consented to (in a manner consistent with the General Corporation Law of the State of Delaware) by the stockholder to whom the notice is given. The notices of all meetings shall state the place, if any, date and time of the meeting and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called. If notice is given by mail, such notice shall be deemed given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. If notice is given by electronic transmission, such notice shall be deemed given at the time specified in Section 232 of the General Corporation Law of the State of Delaware.

1.5 Voting List. The Secretary shall prepare, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least 10 days prior to the meeting:

(a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during



ordinary business hours, at the principal place of business of the corporation. If the meeting is to be held at a physical location (and not solely by means of remote communication), then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. The list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

1.6 Quorum. Except as otherwise provided by law, the Certificate of Incorporation or these By-laws, the holders of a majority in voting power of the shares of the capital stock of the corporation issued and outstanding and entitled to vote at the meeting, present in person, present by means of remote communication in a manner, if any, authorized by the Board of Directors in its sole discretion, or represented by proxy, shall constitute a quorum for the transaction of business; provided, however, that where a separate vote by a class or classes or series of capital stock is required by law or the Certificate of Incorporation, the holders of a majority in voting power of the shares of such class or classes or series of the capital stock of the corporation issued and outstanding and entitled to vote on such matter, present in person, present by means of remote communication in a manner, if any, authorized by the Board of Directors in its sole discretion, or represented by proxy, shall constitute a quorum entitled to take action with respect to the vote on such matter. A quorum, once established at a meeting, shall not be broken by the withdrawal of enough votes to leave less than a quorum.

1.7 Adjournments. Any meeting of stockholders may be adjourned from time to time to any other time and to any other place at which a meeting of stockholders may be held under these By-laws by the chairman of the meeting or by the stockholders present or represented at the meeting and entitled to vote, although less than a quorum. It shall not be necessary to notify any stockholder of any adjournment of less than 30 days if the time and place, if any, of the adjourned meeting, and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which adjournment is taken, unless after the adjournment a new record date is fixed for the adjourned meeting. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting.

1.8 Voting and Proxies. Each stockholder shall have one vote for each share of stock entitled to vote held of record by such stockholder and a proportionate vote for each fractional share so held, unless otherwise provided by law or the Certificate of Incorporation. Each stockholder of record entitled to vote at a meeting of stockholders, or to express consent or dissent to corporate action without a meeting, may vote or express such consent or dissent in person (including by means of remote communications, if any, by which stockholders may be deemed to be present in person and vote at such meeting) or may authorize another person or persons to vote or act for such stockholder by a proxy executed or transmitted in a manner permitted by the General Corporation Law of the State of Delaware by the stockholder or such stockholder's authorized agent and delivered (including by electronic transmission) to the Secretary of the corporation. No such proxy shall be voted or acted upon after three years from the date of its execution, unless the proxy expressly provides for a longer period.

1.9 Action at Meeting. When a quorum is present at any meeting, any matter other than the election of directors to be voted upon by the stockholders at such meeting shall be decided by the vote of the holders of shares of stock having a majority in voting power of the votes cast by the holders of all of the shares of stock present or represented at the meeting and voting affirmatively or negatively on such matter (or if there are two or more classes or series of stock entitled to vote as separate classes, then in the case of each such class or series, the holders of a majority in voting power of the shares of stock of that class or series present or represented at the meeting and voting affirmatively or negatively on such matter), except when a different vote is required by law, the Certificate of Incorporation or these By-laws. When a quorum is present at any meeting, any election by stockholders of directors shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election.

#### 1.10 Conduct of Meetings.

(a) Chairman of Meeting. Meetings of stockholders shall be presided over by the Chairman of the Board, if any, or in the Chairman's absence by the Vice Chairman of the Board, if any, or in the Vice Chairman's absence by the Chief Executive Officer, or in the Chief Executive Officer's absence, by the President, or in the President's absence by a Vice President, or in the absence of all of the foregoing persons by a chairman designated by the Board of Directors, or in the absence of such designation by a chairman chosen by vote of the stockholders at the meeting. The Secretary shall act as secretary of the meeting, but in the Secretary's absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

(b) Rules, Regulations and Procedures. The Board of Directors may adopt by resolution such rules, regulations and procedures for the conduct of any meeting of stockholders of the corporation as it shall deem appropriate including, without limitation, such guidelines and procedures as it may deem appropriate regarding the participation by means of remote communication of stockholders and proxyholders not physically present at a meeting. Except to the extent inconsistent with such rules, regulations and procedures as adopted by the Board of Directors, the chairman of any meeting of stockholders shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chairman of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders of record of the corporation, their duly authorized and constituted proxies or such other persons as shall be determined; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (v) limitations on the time allotted to questions or comments by participants. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

### 1.11 Action without Meeting.

(a) Taking of Action by Consent. Any action required or permitted to be taken at any annual or special meeting of stockholders of the corporation may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote on such action were present and voted. Except as otherwise provided by the Certificate of Incorporation, stockholders may act by written consent to elect directors; provided, however, that, if such consent is less than unanimous, such action by written consent may be in lieu of holding an annual meeting only if all of the directorships to which directors could be elected at an annual meeting held at the effective time of such action are vacant and are filled by such action.

(b) Electronic Transmission of Consents. A telegram, cablegram or other electronic transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, or by a person or persons authorized to act for a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this section, provided that any such telegram, cablegram or other electronic transmission sets forth or is delivered with information from which the corporation can determine (i) that the telegram, cablegram or other electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder or proxyholder and (ii) the date on which such stockholder or proxyholder or authorized person or persons transmitted such telegram, cablegram or electronic transmission. The date on which such telegram, cablegram or electronic transmission is transmitted shall be deemed to be the date on which such consent was signed. No consent given by telegram, cablegram or other electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form shall be delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by telegram, cablegram or other electronic transmission may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if, to the extent and in the manner provided by resolution of the Board of Directors. Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for any and all purposes for which the original writing could be used, provided that such copy, facsimile or other reproduction shall be a complete reproduction of the entire original writing.

(c) Notice of Taking of Corporate Action. Prompt notice of the taking of corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the corporation.

## ARTICLE II

### DIRECTORS

2.1 General Powers. The business and affairs of the corporation shall be managed by or under the direction of a Board of Directors, who may exercise all of the powers of the corporation except as otherwise provided by law or the Certificate of Incorporation.

2.2 Number, Election and Qualification. Subject to the rights of holders of any series of Preferred Stock to elect directors, the number of directors of the corporation shall be established from time to time by the stockholders or the Board of Directors. The directors shall be elected at the annual meeting of stockholders by such stockholders as have the right to vote on such election. Election of directors need not be by written ballot. Directors need not be stockholders of the corporation.

2.3 Chairman of the Board; Vice Chairman of the Board. The Board of Directors may appoint from its members a Chairman of the Board and a Vice Chairman of the Board, neither of whom need be an employee or officer of the corporation. If the Board of Directors appoints a Chairman of the Board, such Chairman shall perform such duties and possess such powers as are assigned by the Board of Directors and, if the Chairman of the Board is also designated as the corporation's Chief Executive Officer, shall have the powers and duties of the Chief Executive Officer prescribed in Section 3.7 of these By-laws. If the Board of Directors appoints a Vice Chairman of the Board, such Vice Chairman shall perform such duties and possess such powers as are assigned by the Board of Directors. Unless otherwise provided by the Board of Directors, the Chairman of the Board or, in the Chairman's absence, the Vice Chairman of the Board, if any, shall preside at all meetings of the Board of Directors.

2.4 Tenure. Each director shall hold office until the next annual meeting of stockholders and until a successor is elected and qualified, or until such director's earlier death, resignation or removal.

2.5 Quorum. The greater of (a) a majority of the directors at any time in office and (b) one-third of the number of directors fixed pursuant to Section 2.2 of these By-laws shall constitute a quorum of the Board of Directors. If at any meeting of the Board of Directors there shall be less than such a quorum, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.

2.6 Action at Meeting. Every act or decision done or made by a majority of the directors present at a meeting of the Board of Directors duly held at which a quorum is present shall be regarded as the act of the Board of Directors, unless a greater number is required by law or by the Certificate of Incorporation.

2.7 Removal. Except as otherwise provided by the General Corporation Law of the State of Delaware, any one or more or all of the directors of the corporation may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors, except that the directors elected by the holders of a particular class or series

of stock may be removed without cause only by vote of the holders of a majority of the outstanding shares of such class or series.

2.8 Vacancies. Subject to the rights of holders of any series of Preferred Stock to elect directors, unless and until filled by the stockholders, any vacancy or newly-created directorship on the Board of Directors, however occurring, may be filled by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director. A director elected to fill a vacancy shall be elected for the unexpired term of such director's predecessor in office, and a director chosen to fill a position resulting from a newly-created directorship shall hold office until the next annual meeting of stockholders and until a successor is elected and qualified, or until such director's earlier death, resignation or removal.

2.9 Resignation. Any director may resign by delivering a resignation in writing or by electronic transmission to the corporation at its principal office or to the Chairman of the Board, the Chief Executive Officer, the President or the Secretary. Such resignation shall be effective upon delivery unless it is specified to be effective at some later time or upon the happening of some later event.

2.10 Regular Meetings. Regular meetings of the Board of Directors may be held without notice at such time and place as shall be determined from time to time by the Board of Directors; provided that any director who is absent when such a determination is made shall be given notice of the determination. A regular meeting of the Board of Directors may be held without notice immediately after and at the same place as the annual meeting of stockholders.

2.11 Special Meetings. Special meetings of the Board of Directors may be held at any time and place designated in a call by the Chairman of the Board, the Chief Executive Officer, the President, two or more directors, or by one director in the event that there is only a single director in office.

2.12 Notice of Special Meetings. Notice of the date, place, if any, and time of any special meeting of directors shall be given to each director by the Secretary or by the officer or one of the directors calling the meeting. Notice shall be duly given to each director (a) in person or by telephone at least 24 hours in advance of the meeting, (b) by sending written notice by reputable overnight courier, telecopy, facsimile or electronic transmission, or delivering written notice by hand, to such director's last known business, home or electronic transmission address at least 48 hours in advance of the meeting, or (c) by sending written notice by first-class mail to such director's last known business or home address at least 72 hours in advance of the meeting. A notice or waiver of notice of a meeting of the Board of Directors need not specify the purposes of the meeting.

2.13 Meetings by Conference Communications Equipment. Directors may participate in meetings of the Board of Directors or any committee thereof by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall constitute presence in person at such meeting.

2.14 Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent to the action in writing or by electronic transmission, and the written consents or electronic transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

2.15 Committees. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation with such lawfully delegable powers and duties as the Board of Directors thereby confers, to serve at the pleasure of the Board of Directors. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members of the committee present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors and subject to the provisions of law, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation and may authorize the seal of the corporation to be affixed to all papers which may require it. Each such committee shall keep minutes and make such reports as the Board of Directors may from time to time request. Except as the Board of Directors may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these By-laws for the Board of Directors. Except as otherwise provided in the Certificate of Incorporation, these By-laws, or the resolution of the Board of Directors designating the committee, a committee may create one or more subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

2.16 Compensation of Directors. Directors may be paid such compensation for their services and such reimbursement for expenses of attendance at meetings as the Board of Directors may from time to time determine. No such payment shall preclude any director from serving the corporation or any of its parent or subsidiary entities in any other capacity and receiving compensation for such service.

### **ARTICLE III**

#### **OFFICERS**

3.1 Titles. The officers of the corporation shall consist of a Chief Executive Officer, a President, a Secretary, a Treasurer and such other officers with such other titles as the Board of Directors shall determine, including one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries. The Board of Directors may appoint such other officers as it may deem appropriate.

3.2 Election. The Chief Executive Officer, President, Treasurer and Secretary shall be elected annually by the Board of Directors at its first meeting following the annual meeting of stockholders. Other officers may be appointed by the Board of Directors at such meeting or at any other meeting.

3.3 Qualification. No officer need be a stockholder. Any two or more offices may be held by the same person.

3.4 Tenure. Except as otherwise provided by law, by the Certificate of Incorporation or by these By-laws, each officer shall hold office until such officer's successor is elected and qualified, unless a different term is specified in the resolution electing or appointing such officer, or until such officer's earlier death, resignation or removal.

3.5 Resignation and Removal. Any officer may resign by delivering a written resignation to the corporation at its principal office or to the Chief Executive Officer, the President or the Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some later time or upon the happening of some later event. Any officer may be removed at any time, with or without cause, by vote of a majority of the directors then in office. Except as the Board of Directors may otherwise determine, no officer who resigns or is removed shall have any right to any compensation as an officer for any period following such officer's resignation or removal, or any right to damages on account of such removal, whether such officer's compensation be by the month or by the year or otherwise, unless such compensation is expressly provided for in a duly authorized written agreement with the corporation.

3.6 Vacancies. The Board of Directors may fill any vacancy occurring in any office for any reason and may, in its discretion, leave unfilled for such period as it may determine any offices other than those of Chief Executive Officer, President, Treasurer and Secretary. Each such successor shall hold office for the unexpired term of such officer's predecessor and until a successor is elected and qualified, or until such officer's earlier death, resignation or removal.

3.7 President; Chief Executive Officer. Unless the Board of Directors has designated another person as the corporation's Chief Executive Officer, the President shall be the Chief Executive Officer of the corporation. The Chief Executive Officer shall have general charge and supervision of the business of the corporation subject to the direction of the Board of Directors, and shall perform all duties and have all powers that are commonly incident to the office of chief executive or that are delegated to such officer by the Board of Directors. The President shall perform such other duties and shall have such other powers as the Board of Directors or the Chief Executive Officer (if the President is not the Chief Executive Officer) may from time to time prescribe. In the event of the absence, inability or refusal to act of the Chief Executive Officer or the President (if the President is not the Chief Executive Officer), the Vice President (or if there shall be more than one, the Vice Presidents in the order determined by the Board of Directors) shall perform the duties of the Chief Executive Officer and when so performing such duties shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer.

3.8 Vice Presidents. Each Vice President shall perform such duties and possess such powers as the Board of Directors or the Chief Executive Officer may from time to time

prescribe. The Board of Directors may assign to any Vice President the title of Executive Vice President, Senior Vice President or any other title selected by the Board of Directors.

3.9 Secretary and Assistant Secretaries. The Secretary shall perform such duties and shall have such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. In addition, the Secretary shall perform such duties and have such powers as are incident to the office of the secretary, including without limitation the duty and power to give notices of all meetings of stockholders and special meetings of the Board of Directors, to attend all meetings of stockholders and the Board of Directors and keep a record of the proceedings, to maintain a stock ledger and prepare lists of stockholders and their addresses as required, to be custodian of corporate records and the corporate seal and to affix and attest to the same on documents.

Any Assistant Secretary shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Secretary may from time to time prescribe. In the event of the absence, inability or refusal to act of the Secretary, the Assistant Secretary (or if there shall be more than one, the Assistant Secretaries in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Secretary.

In the absence of the Secretary or any Assistant Secretary at any meeting of stockholders or directors, the chairman of the meeting shall designate a temporary secretary to keep a record of the meeting.

3.10 Treasurer and Assistant Treasurers. The Treasurer shall perform such duties and shall have such powers as may from time to time be assigned by the Board of Directors or the Chief Executive Officer. In addition, the Treasurer shall perform such duties and have such powers as are incident to the office of treasurer, including without limitation the duty and power to keep and be responsible for all funds and securities of the corporation, to deposit funds of the corporation in depositories selected in accordance with these By-laws, to disburse such funds as ordered by the Board of Directors, to make proper accounts of such funds, and to render as required by the Board of Directors statements of all such transactions and of the financial condition of the corporation.

The Assistant Treasurers shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Treasurer may from time to time prescribe. In the event of the absence, inability or refusal to act of the Treasurer, the Assistant Treasurer (or if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Treasurer.

3.11 Salaries. Officers of the corporation shall be entitled to such salaries, compensation or reimbursement as shall be fixed or allowed from time to time by the Board of Directors.

3.12 Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.



**ARTICLE IV**

**CAPITAL STOCK**

4.1 Issuance of Stock. Subject to the provisions of the Certificate of Incorporation, the whole or any part of any unissued balance of the authorized capital stock of the corporation or the whole or any part of any shares of the authorized capital stock of the corporation held in the corporation's treasury may be issued, sold, transferred or otherwise disposed of by vote of the Board of Directors in such manner, for such lawful consideration and on such terms as the Board of Directors may determine.

4.2 Stock Certificates; Uncertificated Shares. The shares of the corporation shall be represented by certificates, provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of the corporation's stock shall be uncertificated shares. Every holder of stock of the corporation represented by certificates shall be entitled to have a certificate, in such form as may be prescribed by law and by the Board of Directors, representing the number of shares held by such holder registered in certificate form. Each such certificate shall be signed in a manner that complies with Section 158 of the General Corporation Law of the State of Delaware.

Each certificate for shares of stock which are subject to any restriction on transfer pursuant to the Certificate of Incorporation, these By-laws, applicable securities laws or any agreement among any number of stockholders or among such holders and the corporation shall have conspicuously noted on the face or back of the certificate either the full text of the restriction or a statement of the existence of such restriction.

If the corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of each certificate representing shares of such class or series of stock, provided that in lieu of the foregoing requirements there may be set forth on the face or back of each certificate representing shares of such class or series of stock a statement that the corporation will furnish without charge to each stockholder who so requests a copy of the full text of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Within a reasonable time after the issuance or transfer of uncertificated shares, the corporation shall send to the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to Sections 151, 202(a) or 218(a) of the General Corporation Law of the State of Delaware or, with respect to Section 151 of the General Corporation Law of the State of Delaware, a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

4.3 Transfers. Shares of stock of the corporation shall be transferable in the manner prescribed by law and in these By-laws. Transfers of shares of stock of the corporation shall be made only on the books of the corporation or by transfer agents designated to transfer shares of stock of the corporation. Subject to applicable law, shares of stock represented by certificates shall be transferred only on the books of the corporation by the surrender to the corporation or its transfer agent of the certificate representing such shares properly endorsed or accompanied by a written assignment or power of attorney properly executed, and with such proof of authority or the authenticity of signature as the corporation or its transfer agent may reasonably require. Except as may be otherwise required by law, by the Certificate of Incorporation or by these By-laws, the corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect to such stock, regardless of any transfer, pledge or other disposition of such stock until the shares have been transferred on the books of the corporation in accordance with the requirements of these By-laws.

4.4 Lost, Stolen or Destroyed Certificates. The corporation may issue a new certificate of stock in place of any previously issued certificate alleged to have been lost, stolen or destroyed, upon such terms and conditions as the Board of Directors may prescribe, including the presentation of reasonable evidence of such loss, theft or destruction and the giving of such indemnity and posting of such bond as the Board of Directors may require for the protection of the corporation or any transfer agent or registrar.

4.5 Record Date. The Board of Directors may fix in advance a date as a record date for the determination of the stockholders entitled to notice of or to vote at any meeting of stockholders or to express consent (or dissent) to corporate action without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action. Such record date shall not precede the date on which the resolution fixing the record date is adopted, and such record date shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 10 days after the date of adoption of a record date for a consent without a meeting, nor more than 60 days prior to any other action to which such record date relates.

If no record date is fixed, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day before the day on which notice is given, or, if notice is waived, at the close of business on the day before the day on which the meeting is held. If no record date is fixed, the record date for determining stockholders entitled to express consent to corporate action without a meeting, when no prior action by the Board of Directors is necessary, shall be the day on which the first consent is properly delivered to the corporation. If no record date is fixed, the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating to such purpose.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

4.6 Regulations. The issue, transfer, conversion and registration of shares of stock of the corporation shall be governed by such other regulations as the Board of Directors may establish.

## **ARTICLE V**

### **GENERAL PROVISIONS**

5.1 Fiscal Year. Except as from time to time otherwise designated by the Board of Directors, the fiscal year of the corporation shall begin on the first day of January of each year and end on the last day of December in each year.

5.2 Corporate Seal. The corporate seal shall be in such form as shall be approved by the Board of Directors.

5.3 Waiver of Notice. Whenever notice is required to be given by law, by the Certificate of Incorporation or by these By-laws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before, at or after the time of the event for which notice is to be given, shall be deemed equivalent to notice required to be given to such person. Neither the business nor the purpose of any meeting need be specified in any such waiver. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

5.4 Voting of Securities. Except as the Board of Directors may otherwise designate, the Chief Executive Officer, the President or the Treasurer may waive notice of, vote, or appoint any person or persons to vote, on behalf of the corporation at, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact for this corporation (with or without power of substitution) at, any meeting of stockholders or securityholders of any other entity, the securities of which may be held by this corporation.

5.5 Evidence of Authority. A certificate by the Secretary, or an Assistant Secretary, or a temporary Secretary, as to any action taken by the stockholders, directors, a committee or any officer or representative of the corporation shall as to all persons who rely on the certificate in good faith be conclusive evidence of such action.

5.6 Certificate of Incorporation. All references in these By-laws to the Certificate of Incorporation shall be deemed to refer to the Certificate of Incorporation of the corporation, as amended and in effect from time to time.

5.7 Severability. Any determination that any provision of these By-laws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these By-laws.

5.8 Pronouns. All pronouns used in these By-laws shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person or persons may require.

**ARTICLE VI**

**AMENDMENTS**

6.1 By the Board of Directors. These By-laws may be altered, amended or repealed, in whole or in part, or new by-laws may be adopted by the Board of Directors.

6.2 By the Stockholders. These By-laws may be altered, amended or repealed, in whole or in part, or new by-laws may be adopted by the affirmative vote of the holders of a majority of the shares of the capital stock of the corporation issued and outstanding and entitled to vote at any annual meeting of stockholders, or at any special meeting of stockholders, provided notice of such alteration, amendment, repeal or adoption of new by-laws shall have been stated in the notice of such special meeting.

## RESTATED CERTIFICATE OF INCORPORATION

OF

CERULEAN PHARMA INC.

(Pursuant to Sections 242 and 245 of the  
General Corporation Law of the State of Delaware)

Cerulean Pharma Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "General Corporation Law"),

**DOES HEREBY CERTIFY:**

1. That the name of this corporation is Cerulean Pharma Inc. (the "Corporation"), and that the Corporation was originally incorporated pursuant to the General Corporation Law on November 28, 2005 under the name Tempo Pharmaceuticals, Inc. The original Certificate of Incorporation of the Corporation was amended on each of December 1, 2005, October 20, 2006, December 22, 2006, May 8, 2007, December 6, 2007, October 14, 2008, July 9, 2009, July 13, 2009, May 26, 2010, November 12, 2010, December 2, 2011, November 29, 2012, January 11, 2013, February 19, 2013, August 14, 2013, January 30, 2014, February 10, 2014 and [ ], 2014.

2. A resolution was duly adopted by the Board of Directors of the Corporation (the "Board of Directors") pursuant to Sections 242 and 245 of the General Corporation Law proposing this Restated Certificate of Incorporation and declaring the advisability of this Restated Certificate of Incorporation. The stockholders of the Corporation duly approved and adopted this Restated Certificate of Incorporation by written consent in accordance with Sections 228, 242 and 245 of the General Corporation Law.

Accordingly, the Certificate of Incorporation of the Corporation, as previously amended and restated, is hereby further amended and restated in its entirety to read as follows:

FIRST: The name of the Corporation is Cerulean Pharma Inc.

SECOND: The address of the Corporation's registered office in the State of Delaware is Corporation Service Company, 2711 Centerville Road, Suite 400, in the City of Wilmington, County of New Castle 19808. The name of its registered agent at that address is Corporation Service Company.

THIRD: The nature of the business or purposes to be conducted or promoted by the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is 125,000,000 shares, consisting of (i) 120,000,000 shares of Common Stock, \$.0001 par value per share ("Common Stock"), and (ii) 5,000,000 shares of Preferred Stock, \$.01 par value per share ("Preferred Stock").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A COMMON STOCK.

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights of the holders of the Preferred Stock of any series as may be designated by the Board of Directors upon any issuance of the Preferred Stock of any series.

2. Voting. The holders of the Common Stock shall have voting rights at all meetings of stockholders, each such holder being entitled to one vote for each share thereof held by such holder; provided, however, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Certificate of Incorporation (which, as used herein, shall mean the certificate of incorporation of the Corporation, as amended from time to time, including the terms of any certificate of designations of any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon pursuant to this Certificate of Incorporation. There shall be no cumulative voting.

The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of the State of Delaware.

3. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor as and when determined by the Board of Directors and subject to any preferential dividend or other rights of any then outstanding Preferred Stock.

4. Liquidation. Upon the dissolution or liquidation of the Corporation, whether voluntary or involuntary, holders of Common Stock will be entitled to receive all assets of the Corporation available for distribution to its stockholders, subject to any preferential or other rights of any then outstanding Preferred Stock.

B PREFERRED STOCK.

Preferred Stock may be issued from time to time in one or more series, each of such series to have such terms as stated or expressed herein and in the resolution or resolutions providing for the issue of such series adopted by the Board of Directors as hereinafter provided. Any shares of Preferred Stock which may be redeemed, purchased or acquired by the Corporation may be reissued except as otherwise provided by law.

Authority is hereby expressly granted to the Board of Directors from time to time to issue the Preferred Stock in one or more series, and in connection with the creation of any such series, by adopting a resolution or resolutions providing for the issuance of the shares thereof and by filing a certificate of designations relating thereto in accordance with the General Corporation Law of the State of Delaware, to determine and fix the number of shares of such series and such voting powers, full or limited, or no voting powers, and such designations, preferences and relative participating, optional or other special rights, and qualifications, limitations or restrictions thereof, including without limitation thereof, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be stated and expressed in such resolutions, all to the full extent now or hereafter permitted by the General Corporation Law of the State of Delaware. Without limiting the generality of the foregoing, the resolutions providing for issuance of any series of Preferred Stock may provide that such series shall be superior or rank equally or be junior to any other series of Preferred Stock to the extent permitted by law.

The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares then outstanding) by the affirmative vote of the holders of a majority of the voting power of the capital stock of the Corporation entitled to vote thereon, voting as a single class, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of the State of Delaware.

FIFTH: Except as otherwise provided herein, the Corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute and this Certificate of Incorporation, and all rights conferred upon stockholders herein are granted subject to this reservation.

SIXTH: In furtherance and not in limitation of the powers conferred upon it by the General Corporation Law of the State of Delaware, and subject to the terms of any series of Preferred Stock, the Board of Directors shall have the power to adopt, amend, alter or repeal the By-laws of the Corporation by the affirmative vote of a majority of the directors present at any regular or special meeting of the Board of Directors at which a quorum is present. The stockholders may not adopt, amend, alter or repeal the By-laws of the Corporation, or adopt any provision inconsistent therewith, unless such action is approved, in addition to any other vote required by this Certificate of Incorporation, by the affirmative vote of the holders of at least seventy-five percent (75%) of the votes that all the stockholders would be entitled to cast in any annual election of directors or class of directors. Notwithstanding any other provisions of law, this Certificate of Incorporation or the By-laws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast in any annual election of directors or class of directors shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article SIXTH.

SEVENTH: Except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty, no director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability. No amendment to or repeal of this provision shall apply to or have any effect on the liability or alleged liability of any director of

the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal. If the General Corporation Law of the State of Delaware is amended to permit further elimination or limitation of the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware as so amended.

EIGHTH: The Corporation shall provide indemnification as follows:

1. Actions, Suits and Proceedings Other than by or in the Right of the Corporation. The Corporation shall indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he or she is or was, or has agreed to become, a director or officer of the Corporation, or is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) (all such persons being referred to hereafter as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), liabilities, losses, judgments, fines (including excise taxes and penalties arising under the Employee Retirement Income Security Act of 1974), and amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with such action, suit or proceeding and any appeal therefrom, if Indemnitee acted in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his or her conduct was unlawful.

2. Actions or Suits by or in the Right of the Corporation. The Corporation shall indemnify any Indemnitee who was or is a party to or threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that Indemnitee is or was, or has agreed to become, a director or officer of the Corporation, or is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with such action, suit or proceeding and any appeal therefrom, if Indemnitee acted in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the Corporation, except that no indemnification shall be made under this Section 2 in respect of any claim, issue or matter as to which Indemnitee shall have been adjudged to be liable to the Corporation, unless, and only to the extent, that the Court of Chancery of Delaware or the court in which such action or suit was brought shall determine upon application that,



despite the adjudication of such liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such expenses (including attorneys' fees) which the Court of Chancery of Delaware or such other court shall deem proper.

3. Indemnification for Expenses of Successful Party. Notwithstanding any other provisions of this Article EIGHTH, to the extent that an Indemnitee has been successful, on the merits or otherwise, in defense of any action, suit or proceeding referred to in Sections 1 and 2 of this Article EIGHTH, or in defense of any claim, issue or matter therein, or on appeal from any such action, suit or proceeding, Indemnitee shall be indemnified against all expenses (including attorneys' fees) actually and reasonably incurred by or on behalf of Indemnitee in connection therewith. Without limiting the foregoing, if any action, suit or proceeding is disposed of, on the merits or otherwise (including a disposition without prejudice), without (i) the disposition being adverse to Indemnitee, (ii) an adjudication that Indemnitee was liable to the Corporation, (iii) a plea of guilty or nolo contendere by Indemnitee, (iv) an adjudication that Indemnitee did not act in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation, and (v) with respect to any criminal proceeding, an adjudication that Indemnitee had reasonable cause to believe his or her conduct was unlawful, Indemnitee shall be considered for the purposes hereof to have been wholly successful with respect thereto.

4. Notification and Defense of Claim. As a condition precedent to an Indemnitee's right to be indemnified, such Indemnitee must notify the Corporation in writing as soon as practicable of any action, suit, proceeding or investigation involving such Indemnitee for which indemnity will or could be sought. With respect to any action, suit, proceeding or investigation of which the Corporation is so notified, the Corporation will be entitled to participate therein at its own expense and/or to assume the defense thereof at its own expense, with legal counsel reasonably acceptable to Indemnitee. After notice from the Corporation to Indemnitee of its election so to assume such defense, the Corporation shall not be liable to Indemnitee for any legal or other expenses subsequently incurred by Indemnitee in connection with such action, suit, proceeding or investigation, other than as provided below in this Section 4. Indemnitee shall have the right to employ his or her own counsel in connection with such action, suit, proceeding or investigation, but the fees and expenses of such counsel incurred after notice from the Corporation of its assumption of the defense thereof shall be at the expense of Indemnitee unless (i) the employment of counsel by Indemnitee has been authorized by the Corporation, (ii) counsel to Indemnitee shall have reasonably concluded that there may be a conflict of interest or position on any significant issue between the Corporation and Indemnitee in the conduct of the defense of such action, suit, proceeding or investigation or (iii) the Corporation shall not in fact have employed counsel to assume the defense of such action, suit, proceeding or investigation, in each of which cases the fees and expenses of counsel for Indemnitee shall be at the expense of the Corporation, except as otherwise expressly provided by this Article EIGHTH. The Corporation shall not be entitled, without the consent of Indemnitee, to assume the defense of any claim brought by or in the right of the Corporation or as to which counsel for Indemnitee shall have reasonably made the conclusion provided for in clause (ii) above. The Corporation shall not be required to indemnify Indemnitee under this Article EIGHTH for any amounts paid in settlement of any action, suit, proceeding or investigation effected without its written consent. The Corporation shall not settle any action, suit, proceeding or investigation in any manner which would impose any penalty or limitation on Indemnitee without Indemnitee's written consent. Neither the Corporation nor Indemnitee will unreasonably withhold or delay its consent to any proposed settlement.

5. Advance of Expenses. Subject to the provisions of Section 6 of this Article EIGHTH, in the event of any threatened or pending action, suit, proceeding or investigation of which the Corporation receives notice under this Article EIGHTH, any expenses (including attorneys' fees) incurred by or on behalf of Indemnitee in defending an action, suit, proceeding or investigation or any appeal therefrom shall be paid by the Corporation in advance of the final disposition of such matter; provided, however, that the payment of such expenses incurred by or on behalf of Indemnitee in advance of the final disposition of such matter shall be made only upon receipt of an undertaking by or on behalf of Indemnitee to repay all amounts so advanced in the event that it shall ultimately be determined by final judicial decision from which there is no further right to appeal that Indemnitee is not entitled to be indemnified by the Corporation as authorized in this Article EIGHTH; and provided further that no such advancement of expenses shall be made under this Article EIGHTH if it is determined (in the manner described in Section 6 of this Article EIGHTH) that (i) Indemnitee did not act in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the Corporation, or (ii) with respect to any criminal action or proceeding, Indemnitee had reasonable cause to believe his or her conduct was unlawful. Such undertaking shall be accepted without reference to the financial ability of Indemnitee to make such repayment.

6. Procedure for Indemnification and Advancement of Expenses. In order to obtain indemnification or advancement of expenses pursuant to Section 1, 2, 3 or 5 of this Article EIGHTH, an Indemnitee shall submit to the Corporation a written request. Any such advancement of expenses shall be made promptly, and in any event within 60 days after receipt by the Corporation of the written request of Indemnitee, unless (i) the Corporation has assumed the defense pursuant to Section 4 of this Article EIGHTH (and none of the circumstances described in Section 4 of this Article EIGHTH that would nonetheless entitle the Indemnitee to indemnification for the fees and expenses of separate counsel have occurred) or (ii) the Corporation determines within such 60-day period that Indemnitee did not meet the applicable standard of conduct set forth in Section 1, 2 or 5 of this Article EIGHTH, as the case may be. Any such indemnification, unless ordered by a court, shall be made with respect to requests under Section 1 or 2 of this Article EIGHTH only as authorized in the specific case upon a determination by the Corporation that the indemnification of Indemnitee is proper because Indemnitee has met the applicable standard of conduct set forth in Section 1 or 2 of this Article EIGHTH, as the case may be. Such determination shall be made in each instance (a) by a majority vote of the directors of the Corporation consisting of persons who are not at that time parties to the action, suit or proceeding in question ("disinterested directors"), whether or not a quorum, (b) by a committee of disinterested directors designated by majority vote of disinterested directors, whether or not a quorum, (c) if there are no disinterested directors, or if the disinterested directors so direct, by independent legal counsel (who may, to the extent permitted by law, be regular legal counsel to the Corporation) in a written opinion, or (d) by the stockholders of the Corporation.

7. Remedies. The right to indemnification or advancement of expenses as granted by this Article EIGHTH shall be enforceable by Indemnitee in any court of competent jurisdiction. Neither the failure of the Corporation to have made a determination prior to the

commencement of such action that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by the Corporation pursuant to Section 6 of this Article EIGHTH that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct. In any suit brought by Indemnitee to enforce a right to indemnification, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall have the burden of proving that Indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article EIGHTH. Indemnitee's expenses (including attorneys' fees) reasonably incurred in connection with successfully establishing Indemnitee's right to indemnification, in whole or in part, in any such proceeding shall also be indemnified by the Corporation. Notwithstanding the foregoing, in any suit brought by Indemnitee to enforce a right to indemnification hereunder it shall be a defense that the Indemnitee has not met any applicable standard for indemnification set forth in the General Corporation Law of the State of Delaware.

8. Limitations. Notwithstanding anything to the contrary in this Article EIGHTH, except as set forth in Section 7 of this Article EIGHTH, the Corporation shall not indemnify an Indemnitee pursuant to this Article EIGHTH in connection with a proceeding (or part thereof) initiated by such Indemnitee unless the initiation thereof was approved by the Board of Directors of the Corporation. Notwithstanding anything to the contrary in this Article EIGHTH, the Corporation shall not indemnify an Indemnitee to the extent such Indemnitee is reimbursed from the proceeds of insurance, and in the event the Corporation makes any indemnification payments to an Indemnitee and such Indemnitee is subsequently reimbursed from the proceeds of insurance, such Indemnitee shall promptly refund indemnification payments to the Corporation to the extent of such insurance reimbursement.

9. Subsequent Amendment. No amendment, termination or repeal of this Article EIGHTH or of the relevant provisions of the General Corporation Law of the State of Delaware or any other applicable laws shall adversely affect or diminish in any way the rights of any Indemnitee to indemnification under the provisions hereof with respect to any action, suit, proceeding or investigation arising out of or relating to any actions, transactions or facts occurring prior to the final adoption of such amendment, termination or repeal.

10. Other Rights. The indemnification and advancement of expenses provided by this Article EIGHTH shall not be deemed exclusive of any other rights to which an Indemnitee seeking indemnification or advancement of expenses may be entitled under any law (common or statutory), agreement or vote of stockholders or disinterested directors or otherwise, both as to action in Indemnitee's official capacity and as to action in any other capacity while holding office for the Corporation, and shall continue as to an Indemnitee who has ceased to be a director or officer, and shall inure to the benefit of the estate, heirs, executors and administrators of Indemnitee. Nothing contained in this Article EIGHTH shall be deemed to prohibit, and the Corporation is specifically authorized to enter into, agreements with officers and directors providing indemnification rights and procedures different from those set forth in this Article EIGHTH. In addition, the Corporation may, to the extent authorized from time to time by its Board of Directors, grant indemnification rights to other employees or agents of the Corporation or other persons serving the Corporation and such rights may be equivalent to, or greater or less than, those set forth in this Article EIGHTH.

11. Partial Indemnification. If an Indemnitee is entitled under any provision of this Article EIGHTH to indemnification by the Corporation for some or a portion of the expenses (including attorneys' fees), liabilities, losses, judgments, fines (including excise taxes and penalties arising under the Employee Retirement Income Security Act of 1974) or amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with any action, suit, proceeding or investigation and any appeal therefrom but not, however, for the total amount thereof, the Corporation shall nevertheless indemnify Indemnitee for the portion of such expenses (including attorneys' fees), liabilities, losses, judgments, fines (including excise taxes and penalties arising under the Employee Retirement Income Security Act of 1974) or amounts paid in settlement to which Indemnitee is entitled.

12. Insurance. The Corporation may purchase and maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) against any expense, liability or loss incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the General Corporation Law of the State of Delaware.

13. Savings Clause. If this Article EIGHTH or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each Indemnitee as to any expenses (including attorneys' fees), liabilities, losses, judgments, fines (including excise taxes and penalties arising under the Employee Retirement Income Security Act of 1974) and amounts paid in settlement in connection with any action, suit, proceeding or investigation, whether civil, criminal or administrative, including an action by or in the right of the Corporation, to the fullest extent permitted by any applicable portion of this Article EIGHTH that shall not have been invalidated and to the fullest extent permitted by applicable law.

14. Definitions. Terms used herein and defined in Section 145(h) and Section 145(i) of the General Corporation Law of the State of Delaware shall have the respective meanings assigned to such terms in such Section 145(h) and Section 145(i).

NINTH: This Article NINTH is inserted for the management of the business and for the conduct of the affairs of the Corporation.

1. General Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors.

2. Number of Directors; Election of Directors. Subject to the rights of holders of any series of Preferred Stock to elect directors, the number of directors of the Corporation shall be established by the Board of Directors. Election of directors need not be by written ballot, except as and to the extent provided in the By-laws of the Corporation.

3. Classes of Directors. Subject to the rights of holders of any series of Preferred Stock to elect directors, the Board of Directors shall be and is divided into three classes, designated Class I, Class II and Class III. Each class shall consist, as nearly as may be possible,

of one-third of the total number of directors constituting the entire Board of Directors. The Board of Directors is authorized to assign members of the Board of Directors already in office to Class I, Class II or Class III at the time such classification becomes effective.

4. Terms of Office. Subject to the rights of holders of any series of Preferred Stock to elect directors, each director shall serve for a term ending on the date of the third annual meeting of stockholders following the annual meeting of stockholders at which such director was elected; provided that each director initially assigned to Class I shall serve for a term expiring at the Corporation's first annual meeting of stockholders held after the effectiveness of this Restated Certificate of Incorporation; each director initially assigned to Class II shall serve for a term expiring at the Corporation's second annual meeting of stockholders held after the effectiveness of this Restated Certificate of Incorporation; and each director initially assigned to Class III shall serve for a term expiring at the Corporation's third annual meeting of stockholders held after the effectiveness of this Restated Certificate of Incorporation; provided further, that the term of each director shall continue until the election and qualification of his or her successor and be subject to his or her earlier death, resignation or removal.

5. Quorum. The greater of (a) a majority of the directors at any time in office and (b) one-third of the number of directors fixed pursuant to Section 2 of this Article NINTH shall constitute a quorum of the Board of Directors. If at any meeting of the Board of Directors there shall be less than such a quorum, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.

6. Action at Meeting. Every act or decision done or made by a majority of the directors present at a meeting duly held at which a quorum is present shall be regarded as the act of the Board of Directors unless a greater number is required by law or by this Certificate of Incorporation.

7. Removal. Subject to the rights of holders of any series of Preferred Stock, directors of the Corporation may be removed only for cause and only by the affirmative vote of the holders of at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast in any annual election of directors or class of directors.

8. Vacancies. Subject to the rights of holders of any series of Preferred Stock, any vacancy or newly created directorship in the Board of Directors, however occurring, shall be filled only by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director and shall not be filled by the stockholders. A director elected to fill a vacancy shall hold office until the next election of the class for which such director shall have been chosen, subject to the election and qualification of a successor and to such director's earlier death, resignation or removal.

9. Stockholder Nominations and Introduction of Business, Etc. Advance notice of stockholder nominations for election of directors and other business to be brought by stockholders before a meeting of stockholders shall be given in the manner provided by the By-laws of the Corporation.

10. Amendments to Article. Notwithstanding any other provisions of law, this Certificate of Incorporation or the By-laws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast in any annual election of directors or class of directors shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article NINTH.

TENTH: Stockholders of the Corporation may not take any action by written consent in lieu of a meeting. Notwithstanding any other provisions of law, this Certificate of Incorporation or the By-laws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast in any annual election of directors or class of directors shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article TENTH.

ELEVENTH: Special meetings of stockholders for any purpose or purposes may be called at any time by only the Board of Directors, the Chairman of the Board or the Chief Executive Officer, and may not be called by any other person or persons. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting. Notwithstanding any other provisions of law, this Certificate of Incorporation or the By-laws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast in any annual election of directors or class of directors shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article ELEVENTH.

IN WITNESS WHEREOF, this Restated Certificate of Incorporation, which restates, integrates and amends the certificate of incorporation of the Corporation, and which has been duly adopted in accordance with Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware, has been executed by its duly authorized officer this [ ] day of [ ], 2014.

CERULEAN PHARMA INC.

By: \_\_\_\_\_  
Name: Oliver Fetzer  
Title: Chief Executive Officer

AMENDED AND RESTATED BY-LAWS  
OF  
CERULEAN PHARMA INC.

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**ARTICLE I**

**STOCKHOLDERS**

1.1 Place of Meetings. All meetings of stockholders shall be held at such place as may be designated from time to time by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President or, if not so designated, at the principal office of the corporation.

1.2 Annual Meeting. The annual meeting of stockholders for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly be brought before the meeting shall be held on a date and at a time designated by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President (which date shall not be a legal holiday in the place where the meeting is to be held).

1.3 Special Meetings. Special meetings of stockholders for any purpose or purposes may be called at any time by only the Board of Directors, the Chairman of the Board or the Chief Executive Officer, and may not be called by any other person or persons. The Board of Directors may postpone or reschedule any previously scheduled special meeting of stockholders. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.

1.4 Notice of Meetings. Except as otherwise provided by law, notice of each meeting of stockholders, whether annual or special, shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. Without limiting the manner by which notice otherwise may be given to stockholders, any notice shall be effective if given by a form of electronic transmission consented to (in a manner consistent with the General Corporation Law of the State of Delaware) by the stockholder to whom the notice is given. The notices of all meetings shall state the place, date and time of the meeting and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called. If notice is given by mail, such notice shall be deemed given when deposited in the United States mail, postage

prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. If notice is given by electronic transmission, such notice shall be deemed given at the time specified in Section 232 of the General Corporation Law of the State of Delaware.

1.5 Voting List. The Secretary shall prepare, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least 10 days prior to the meeting: (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the corporation. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. The list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

1.6 Quorum. Except as otherwise provided by law, the Certificate of Incorporation or these By-laws, the holders of a majority in voting power of the shares of the capital stock of the corporation issued and outstanding and entitled to vote at the meeting, present in person, present by means of remote communication in a manner, if any, authorized by the Board of Directors in its sole discretion, or represented by proxy, shall constitute a quorum for the transaction of business; provided, however, that where a separate vote by a class or classes or series of capital stock is required by law or the Certificate of Incorporation, the holders of a majority in voting power of the shares of such class or classes or series of the capital stock of the corporation issued and outstanding and entitled to vote on such matter, present in person, present by means of remote communication in a manner, if any, authorized by the Board of Directors in its sole discretion, or represented by proxy, shall constitute a quorum entitled to take action with respect to the vote on such matter. A quorum, once established at a meeting, shall not be broken by the withdrawal of enough votes to leave less than a quorum.

1.7 Adjournments. Any meeting of stockholders may be adjourned from time to time to any other time and to any other place at which a meeting of stockholders may be held under these By-laws by the chairman of the meeting or by the stockholders present or represented at the meeting and entitled to vote, although less than a quorum. It shall not be necessary to notify any stockholder of any adjournment of less than 30 days if the time and place of the adjourned meeting, and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which adjournment is taken, unless after the adjournment a new record date is fixed for the adjourned meeting. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting.

1.8 Voting and Proxies. Each stockholder shall have one vote for each share of stock entitled to vote held of record by such stockholder and a proportionate vote for each fractional share so held, unless otherwise provided by law or the Certificate of Incorporation. Each stockholder of record entitled to vote at a meeting of stockholders may vote in person (including by means of remote communications, if any, by which stockholders may be deemed to be present in person and vote at such meeting) or may authorize another person or persons to vote for such stockholder by a proxy executed or transmitted in a manner permitted by the General Corporation Law of the State of Delaware by the stockholder or such stockholder's authorized agent and delivered (including by electronic transmission) to the Secretary of the corporation. No such proxy shall be voted upon after three years from the date of its execution, unless the proxy expressly provides for a longer period.

1.9 Action at Meeting. When a quorum is present at any meeting, any matter other than the election of directors to be voted upon by the stockholders at such meeting shall be decided by the vote of the holders of shares of stock having a majority in voting power of the votes cast by the holders of all of the shares of stock present or represented at the meeting and voting affirmatively or negatively on such matter (or if there are two or more classes or series of stock entitled to vote as separate classes, then in the case of each such class or series, the holders of a majority in voting power of the shares of stock of that class or series present or represented at the meeting and voting affirmatively or negatively on such matter), except when a different vote is required by law, the Certificate of Incorporation or these By-laws. When a quorum is present at any meeting, any election by stockholders of directors shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election.

#### 1.10 Nomination of Directors.

(a) Except for (1) any directors entitled to be elected by the holders of preferred stock, (2) any directors elected in accordance with Section 2.9 hereof by the Board of Directors to fill a vacancy or newly-created directorship or (3) as otherwise required by applicable law or stock exchange regulation, at any meeting of stockholders, only persons who are nominated in accordance with the procedures in this Section 1.10 shall be eligible for election as directors. Nomination for election to the Board of Directors at a meeting of stockholders may be made (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who (x) timely complies with the notice procedures in Section 1.10(b), (y) is a stockholder of record on the date of the giving of such notice and on the record date for the determination of stockholders entitled to vote at such meeting and (z) is entitled to vote at such meeting.

(b) To be timely, a stockholder's notice must be received in writing by the Secretary at the principal executive offices of the corporation as follows: (i) in the case of an election of directors at an annual meeting of stockholders, not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received not earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs; or (ii) in the case of an election of directors at a special meeting of stockholders, provided that the Board of Directors, the Chairman of the Board or the Chief Executive Officer has determined, in accordance with Section 1.3, that directors shall be elected at such special meeting and provided further that the nomination made by the stockholder is for one of the director positions that the Board of Directors, the Chairman of the Board or the Chief

Executive Officer, as the case may be, has determined will be filled at such special meeting, not earlier than the 120th day prior to such special meeting and not later than the close of business on the later of (x) the 90th day prior to such special meeting and (y) the tenth day following the day on which notice of the date of such special meeting was mailed or public disclosure of the date of such special meeting was made, whichever first occurs. In no event shall the adjournment or postponement of a meeting (or the public disclosure thereof) commence a new time period (or extend any time period) for the giving of a stockholder's notice.

The stockholder's notice to the Secretary shall set forth: (A) as to each proposed nominee (1) such person's name, age, business address and, if known, residence address, (2) such person's principal occupation or employment, (3) the class and series and number of shares of stock of the corporation that are, directly or indirectly, owned, beneficially or of record, by such person, (4) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among (x) the stockholder, the beneficial owner, if any, on whose behalf the nomination is being made and the respective affiliates and associates of, or others acting in concert with, such stockholder and such beneficial owner, on the one hand, and (y) each proposed nominee, and his or her respective affiliates and associates, or others acting in concert with such nominee(s), on the other hand, including all information that would be required to be disclosed pursuant to Item 404 of Regulation S-K if the stockholder making the nomination and any beneficial owner on whose behalf the nomination is made or any affiliate or associate thereof or person acting in concert therewith were the "registrant" for purposes of such Item and the proposed nominee were a director or executive officer of such registrant, and (5) any other information concerning such person that must be disclosed as to nominees in proxy solicitations pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and (B) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination is being made (1) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (2) the class and series and number of shares of stock of the corporation that are, directly or indirectly, owned, beneficially or of record, by such stockholder and such beneficial owner, (3) a description of any agreement, arrangement or understanding between or among such stockholder and/or such beneficial owner and each proposed nominee and any other person or persons

(including their names) pursuant to which the nomination(s) are being made or who may participate in the solicitation of proxies in favor of electing such nominee(s), (4) a description of any agreement, arrangement or understanding (including any derivative or short positions, swaps, profit interests, options, warrants, convertible securities, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into by, or on behalf of, such stockholder or such beneficial owner, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder or such beneficial owner with respect to shares of stock of the corporation, (5) any other information relating to such stockholder and such beneficial owner that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for the election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder, (6) a representation that such stockholder intends to appear in person or by proxy at the meeting to nominate the person(s) named in its notice and (7) a representation whether such stockholder and/or such beneficial owner intends or is part of a group which intends (x) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the corporation's outstanding capital stock reasonably believed by such stockholder or such beneficial owner to be sufficient to elect the nominee (and such representation shall be included in any such proxy statement and form of proxy) and/or (y) otherwise to solicit proxies from stockholders in support of such nomination (and such representation shall be included in any such solicitation materials). Not later than 10 days after the record date for the meeting, the information required by Items (A)(1)-(5) and (B)(1)-(5) of the prior sentence shall be supplemented by the stockholder giving the notice to provide updated information as of the record date. In addition, to be effective, the stockholder's notice must be accompanied by the written consent of the proposed nominee to serve as a director if elected. The corporation may require any proposed nominee to furnish such other information as the corporation may reasonably require to determine the eligibility of such proposed nominee to serve as a director of the corporation or whether such nominee would be independent under applicable Securities and Exchange Commission and stock exchange rules and the corporation's publicly disclosed corporate governance guidelines. A stockholder shall not have complied with this Section 1.10(b) if the stockholder (or beneficial owner, if any, on whose behalf the nomination is made) solicits or does not solicit, as the case may be, proxies in support of such stockholder's nominee in contravention of the representations with respect thereto required by this Section 1.10.



(c) The chairman of any meeting shall have the power and duty to determine whether a nomination was made in accordance with the provisions of this Section 1.10 (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies in support of such stockholder's nominee in compliance with the representations with respect thereto required by this Section 1.10), and if the chairman should determine that a nomination was not made in accordance with the provisions of this Section 1.10, the chairman shall so declare to the meeting and such nomination shall not be brought before the meeting.

(d) Except as otherwise required by law, nothing in this Section 1.10 shall obligate the corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the corporation or the Board of Directors information with respect to any nominee for director submitted by a stockholder.

(e) Notwithstanding the foregoing provisions of this Section 1.10, unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the meeting to present a nomination, such nomination shall not be brought before the meeting, notwithstanding that proxies in respect of such nominee may have been received by the corporation. For purposes of this Section 1.10, to be considered a "qualified representative of the stockholder", a person must be authorized by a written instrument executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such written instrument or electronic transmission, or a reliable reproduction of the written instrument or electronic transmission, at the meeting of stockholders.

(f) For purposes of this Section 1.10, "public disclosure" shall include disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

### 1.11 Notice of Business at Annual Meetings.

(a) At any annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (1) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (2) otherwise properly brought before the meeting by or at the direction of the Board of Directors, or (3) properly brought before the meeting by a stockholder. For business to be properly brought before an annual meeting by a stockholder, (i) if such business relates to the nomination of a person for election as a director of the corporation, the procedures in Section 1.10 must be complied with and (ii) if such business relates to any other matter, the business must constitute a proper matter under Delaware law for stockholder action and the stockholder must (x) have given timely notice thereof in writing to the Secretary in accordance with the procedures in Section 1.11(b), (y) be a stockholder of record on the date of the giving of such notice and on the record date for the determination of stockholders entitled to vote at such annual meeting and (z) be entitled to vote at such annual meeting.

(b) To be timely, a stockholder's notice must be received in writing by the Secretary at the principal executive offices of the corporation not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received not earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs. In no event shall the adjournment or postponement of an annual meeting (or the public disclosure thereof) commence a new time period (or extend any time period) for the giving of a stockholder's notice.

The stockholder's notice to the Secretary shall set forth: (A) as to each matter the stockholder proposes to bring before the annual meeting (1) a brief description of the business

desired to be brought before the annual meeting, (2) the text of the proposal (including the exact text of any resolutions proposed for consideration and, in the event that such business includes a proposal to amend the By-laws, the exact text of the proposed amendment), and (3) the reasons for conducting such business at the annual meeting, and (B) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the proposal is being made (1) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (2) the class and series and number of shares of stock of the corporation that are, directly or indirectly, owned, beneficially or of record, by such stockholder and such beneficial owner, (3) a description of any material interest of such stockholder or such beneficial owner and the respective affiliates and associates of, or others acting in concert with, such stockholder or such beneficial owner in such business, (4) a description of any agreement, arrangement or understanding between or among such stockholder and/or such beneficial owner and any other person or persons (including their names) in connection with the proposal of such business or who may participate in the solicitation of proxies in favor of such proposal, (5) a description of any agreement, arrangement or understanding (including any derivative or short positions, swaps, profit interests, options, warrants, convertible securities, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into by, or on behalf of, such stockholder or such beneficial owner, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder or such beneficial owner with respect to shares of stock of the corporation, (6) any other information relating to such stockholder and such beneficial owner that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for the business proposed pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder, (7) a representation that such stockholder intends to appear in person or by proxy at the annual meeting to bring such business before the meeting and (8) a representation whether such stockholder and/or such beneficial owner intends or is part of a group which intends (x) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the corporation's outstanding capital stock required to approve or adopt the proposal (and such representation shall be included in any such proxy statement and form of proxy) and/or (y) otherwise to solicit proxies from stockholders in support of such proposal (and such representation shall be included in any such

solicitation materials). Not later than 10 days after the record date for the meeting, the information required by Items (A)(3) and (B)(1)-(6) of the prior sentence shall be supplemented by the stockholder giving the notice to provide updated information as of the record date. Notwithstanding anything in these By-laws to the contrary, no business shall be conducted at any annual meeting of stockholders except in accordance with the procedures in this Section 1.11; provided that any stockholder proposal which complies with Rule 14a-8 of the proxy rules (or any successor provision) promulgated under the Exchange Act and is to be included in the corporation's proxy statement for an annual meeting of stockholders shall be deemed to comply with the notice requirements of this Section 1.11. A stockholder shall not have complied with this Section 1.11(b) if the stockholder (or beneficial owner, if any, on whose behalf the proposal is made) solicits or does not solicit, as the case may be, proxies in support of such stockholder's proposal in contravention of the representations with respect thereto required by this Section 1.11.

(c) The chairman of any annual meeting shall have the power and duty to determine whether business was properly brought before the annual meeting in accordance with the provisions of this Section 1.11 (including whether the stockholder or beneficial owner, if any, on whose behalf the proposal is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies in support of such stockholder's proposal in compliance with the representation with respect thereto required by this Section 1.11), and if the chairman should determine that business was not properly brought before the annual meeting in accordance with the provisions of this Section 1.11, the chairman shall so declare to the meeting and such business shall not be brought before the annual meeting.

(d) Except as otherwise required by law, nothing in this Section 1.11 shall obligate the corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the corporation or the Board of Directors information with respect to any proposal submitted by a stockholder.

(e) Notwithstanding the foregoing provisions of this Section 1.11, unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting to present business, such business shall not be considered, notwithstanding that proxies in respect of such business may have been received by the corporation.

(f) For purposes of this Section 1.11, the terms "qualified representative of the stockholder" and "public disclosure" shall have the same meaning as in Section 1.10.

### 1.12 Conduct of Meetings.

(a) Meetings of stockholders shall be presided over by the Chairman of the Board, if any, or in the Chairman's absence by the Vice Chairman of the Board, if any, or in the Vice Chairman's absence by the Chief Executive Officer, or in the Chief Executive Officer's absence, by the President, or in the President's absence by a Vice President, or in the absence of all of the foregoing persons by a chairman designated by the Board of Directors. The Secretary shall act as secretary of the meeting, but in the Secretary's absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

(b) The Board of Directors may adopt by resolution such rules, regulations and procedures for the conduct of any meeting of stockholders of the corporation as it shall deem appropriate including, without limitation, such guidelines and procedures as it may deem appropriate regarding the participation by means of remote communication of stockholders and proxyholders not physically present at a meeting. Except to the extent inconsistent with such rules, regulations and procedures as adopted by the Board of Directors, the chairman of any meeting of stockholders shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chairman of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders of record of the corporation, their duly authorized and constituted proxies or such other persons as shall be determined; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (v) limitations on the time allotted to questions or comments by participants. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

(c) The chairman of the meeting shall announce at the meeting when the polls for each matter to be voted upon at the meeting will be opened and closed. After the polls close, no ballots, proxies or votes or any revocations or changes thereto may be accepted.

(d) In advance of any meeting of stockholders, the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President shall appoint one or more inspectors of election to act at the meeting and make a written report thereof. One or more other persons may be designated as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is present, ready and willing to act at a meeting of stockholders, the chairman of the meeting shall appoint one or more inspectors to act at the meeting. Unless otherwise required by law, inspectors may be officers, employees or agents of the corporation. Each inspector, before entering upon the discharge of such inspector's duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of such inspector's ability. The inspector shall have the duties prescribed by law and shall take charge of the polls and, when the vote is completed, shall make a certificate of the result of the vote taken and of such other facts as may be required by law. Every vote taken by ballots shall be counted by a duly appointed inspector or duly appointed inspectors.

1.13 No Action by Consent in Lieu of a Meeting. Stockholders of the corporation may not take any action by written consent in lieu of a meeting.

## ARTICLE II

### DIRECTORS

2.1 General Powers. The business and affairs of the corporation shall be managed by or under the direction of a Board of Directors, who may exercise all of the powers of the corporation except as otherwise provided by law or the Certificate of Incorporation.

2.2 Number, Election and Qualification. Subject to the rights of holders of any series of Preferred Stock to elect directors, the number of directors of the corporation shall be established by the Board of Directors. Election of directors need not be by written ballot. Directors need not be stockholders of the corporation.

2.3 Chairman of the Board; Vice Chairman of the Board. The Board of Directors may appoint from its members a Chairman of the Board and a Vice Chairman of the Board, neither of whom need be an employee or officer of the corporation. If the Board of Directors appoints a Chairman of the Board, such Chairman shall perform such duties and possess such powers as are assigned by the Board of Directors and, if the Chairman of the Board is also designated as the corporation's Chief Executive Officer, shall have the powers and duties of the Chief Executive Officer prescribed in Section 3.7 of these By-laws. If the Board of Directors appoints a Vice Chairman of the Board, such Vice Chairman shall perform such duties and possess such powers as are assigned by the Board of Directors. Unless otherwise provided by the Board of Directors, the Chairman of the Board or, in the Chairman's absence, the Vice Chairman of the Board, if any, shall preside at all meetings of the Board of Directors.

2.4 Classes of Directors. Subject to the rights of holders of any series of Preferred Stock to elect directors, the Board of Directors shall be and is divided into three classes: Class I, Class II and Class III. Each class shall consist, as nearly as may be possible, of one-third of the total number of directors constituting the entire Board of Directors. The allocation of directors among classes shall be determined by resolution of the Board of Directors.

2.5 Terms of Office. Subject to the rights of holders of any series of Preferred Stock to elect directors, each director shall serve for a term ending on the date of the third annual meeting of stockholders following the annual meeting of stockholders at which such director was elected; provided that each director initially assigned to Class I shall serve for a term expiring at the corporation's first annual meeting of stockholders held after the effectiveness of these Amended and Restated By-laws; each director initially assigned to Class II shall serve for a term expiring at the corporation's second annual meeting of stockholders held after the effectiveness of these Amended and Restated By-laws; and each director initially assigned to Class III shall serve for a term expiring at the corporation's third annual meeting of stockholders held after the effectiveness of these Amended and Restated By-laws; provided further, that the term of each director shall continue until the election and qualification of his or her successor and be subject to his or her earlier death, resignation or removal.

2.6 Quorum. The greater of (a) a majority of the directors at any time in office and (b) one-third of the number of directors established by the Board of Directors pursuant to Section 2.2 of these By-laws shall constitute a quorum of the Board of Directors. If at any meeting of the Board of Directors there shall be less than such a quorum, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.

2.7 Action at Meeting. Every act or decision done or made by a majority of the directors present at a meeting duly held at which a quorum is present shall be regarded as the act of the Board of Directors, unless a greater number is required by law or by the Certificate of Incorporation.

2.8 Removal. Subject to the rights of holders of any series of Preferred Stock, directors of the corporation may be removed only for cause and only by the affirmative vote of the holders of at least 75% of the votes which all the stockholders would be entitled to cast in any annual election of directors or class of directors.

2.9 Vacancies. Subject to the rights of holders of any series of Preferred Stock, any vacancy or newly-created directorship on the Board of Directors, however occurring, shall be filled only by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director and shall not be filled by the stockholders. A director elected to fill a vacancy shall hold office until the next election of the class for which such director shall have been chosen, subject to the election and qualification of a successor or until such director's earlier death, resignation or removal.

2.10 Resignation. Any director may resign by delivering a resignation in writing or by electronic transmission to the corporation at its principal office or to the Chairman of the Board, the Chief Executive Officer, the President or the Secretary. Such resignation shall be effective upon delivery unless it is specified to be effective at some later time or upon the happening of some later event.



2.11 Regular Meetings. Regular meetings of the Board of Directors may be held without notice at such time and place as shall be determined from time to time by the Board of Directors; provided that any director who is absent when such a determination is made shall be given notice of the determination. A regular meeting of the Board of Directors may be held without notice immediately after and at the same place as the annual meeting of stockholders.

2.12 Special Meetings. Special meetings of the Board of Directors may be held at any time and place designated in a call by the Chairman of the Board, the Chief Executive Officer, the President, two or more directors, or by one director in the event that there is only a single director in office.

2.13 Notice of Special Meetings. Notice of the date, place and time of any special meeting of directors shall be given to each director by the Secretary or by the officer or one of the directors calling the meeting. Notice shall be duly given to each director (a) in person or by telephone at least 24 hours in advance of the meeting, (b) by sending written notice by reputable overnight courier, telecopy, facsimile or electronic transmission, or delivering written notice by hand, to such director's last known business, home or electronic transmission address at least 48 hours in advance of the meeting, or (c) by sending written notice by first-class mail to such director's last known business or home address at least 72 hours in advance of the meeting. A notice or waiver of notice of a meeting of the Board of Directors need not specify the purposes of the meeting.

2.14 Meetings by Conference Communications Equipment. Directors may participate in meetings of the Board of Directors or any committee thereof by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall constitute presence in person at such meeting.

2.15 Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent to the action in writing or by electronic transmission, and the written consents or electronic transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

2.16 Committees. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation with such lawfully delegable powers and duties as the Board of Directors thereby confers, to serve at the pleasure of the Board of Directors. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members of the committee present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors and subject to the provisions of law, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation and may authorize the seal of the corporation to be affixed to all papers which may require it. Each such committee shall keep minutes and make such reports as the Board of Directors may from time to time request. Except as the Board of Directors may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these By-laws for the Board of Directors. Except as otherwise provided in the Certificate of Incorporation, these By-laws, or the resolution of the Board of Directors designating the committee, a committee may create one or more subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

2.17 Compensation of Directors. Directors may be paid such compensation for their services and such reimbursement for expenses of attendance at meetings as the Board of Directors may from time to time determine. No such payment shall preclude any director from serving the corporation or any of its parent or subsidiary entities in any other capacity and receiving compensation for such service.

## ARTICLE III

### OFFICERS

3.1 Titles. The officers of the corporation shall consist of a Chief Executive Officer, a President, a Secretary, a Treasurer and such other officers with such other titles as the Board of Directors shall determine, including one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries. The Board of Directors may appoint such other officers as it may deem appropriate.

3.2 Election. The Chief Executive Officer, President, Treasurer and Secretary shall be elected annually by the Board of Directors at its first meeting following the annual meeting of stockholders. Other officers may be appointed by the Board of Directors at such meeting or at any other meeting.

3.3 Qualification. No officer need be a stockholder. Any two or more offices may be held by the same person.

3.4 Tenure. Except as otherwise provided by law, by the Certificate of Incorporation or by these By-laws, each officer shall hold office until such officer's successor is elected and qualified, unless a different term is specified in the resolution electing or appointing such officer, or until such officer's earlier death, resignation or removal.

3.5 Resignation and Removal. Any officer may resign by delivering a written resignation to the corporation at its principal office or to the Chief Executive Officer, the President or the Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some later time or upon the happening of some later event. Any officer may be removed at any time, with or without cause, by vote of a majority of the directors then in office. Except as the Board of Directors may otherwise determine, no officer who resigns or is removed shall have any right to any compensation as an officer for any period following such officer's resignation or removal, or any right to damages on account of such removal, whether such officer's compensation be by the month or by the year or otherwise, unless such compensation is expressly provided for in a duly authorized written agreement with the corporation.

3.6 Vacancies. The Board of Directors may fill any vacancy occurring in any office for any reason and may, in its discretion, leave unfilled for such period as it may determine any offices other than those of Chief Executive Officer, President, Treasurer and Secretary. Each such successor shall hold office for the unexpired term of such officer's predecessor and until a successor is elected and qualified, or until such officer's earlier death, resignation or removal.

3.7 President; Chief Executive Officer. Unless the Board of Directors has designated another person as the corporation's Chief Executive Officer, the President shall be the Chief Executive Officer of the corporation. The Chief Executive Officer shall have general charge and supervision of the business of the corporation subject to the direction of the Board of Directors, and shall perform all duties and have all powers that are commonly incident to the office of chief executive or that are delegated to such officer by the Board of Directors. The President shall perform such other duties and shall have such other powers as the Board of Directors or the Chief Executive Officer (if the President is not the Chief Executive Officer) may from time to time prescribe. In the event of the absence, inability or refusal to act of the Chief Executive Officer or the President (if the President is not the Chief Executive Officer), the Vice President (or if there shall be more than one, the Vice Presidents in the order determined by the Board of Directors) shall perform the duties of the Chief Executive Officer and when so performing such duties shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer.

3.8 Vice Presidents. Each Vice President shall perform such duties and possess such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. The Board of Directors may assign to any Vice President the title of Executive Vice President, Senior Vice President or any other title selected by the Board of Directors.

3.9 Secretary and Assistant Secretaries. The Secretary shall perform such duties and shall have such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. In addition, the Secretary shall perform such duties and have such powers as are incident to the office of the secretary, including without limitation the duty and power to give notices of all meetings of stockholders and special meetings of the Board of Directors, to attend all meetings of stockholders and the Board of Directors and keep a record of the proceedings, to

maintain a stock ledger and prepare lists of stockholders and their addresses as required, to be custodian of corporate records and the corporate seal and to affix and attest to the same on documents.

Any Assistant Secretary shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Secretary may from time to time prescribe. In the event of the absence, inability or refusal to act of the Secretary, the Assistant Secretary (or if there shall be more than one, the Assistant Secretaries in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Secretary.

In the absence of the Secretary or any Assistant Secretary at any meeting of stockholders or directors, the chairman of the meeting shall designate a temporary secretary to keep a record of the meeting.

3.10 Treasurer and Assistant Treasurers. The Treasurer shall perform such duties and shall have such powers as may from time to time be assigned by the Board of Directors or the Chief Executive Officer. In addition, the Treasurer shall perform such duties and have such powers as are incident to the office of treasurer, including without limitation the duty and power to keep and be responsible for all funds and securities of the corporation, to deposit funds of the corporation in depositories selected in accordance with these By-laws, to disburse such funds as ordered by the Board of Directors, to make proper accounts of such funds, and to render as required by the Board of Directors statements of all such transactions and of the financial condition of the corporation.

The Assistant Treasurers shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Treasurer may from time to time prescribe. In the event of the absence, inability or refusal to act of the Treasurer, the Assistant Treasurer (or if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Treasurer.

3.11 Salaries. Officers of the corporation shall be entitled to such salaries, compensation or reimbursement as shall be fixed or allowed from time to time by the Board of Directors.

3.12 Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

**ARTICLE IV**

**CAPITAL STOCK**

4.1 Issuance of Stock. Subject to the provisions of the Certificate of Incorporation, the whole or any part of any unissued balance of the authorized capital stock of the corporation or the whole or any part of any shares of the authorized capital stock of the corporation held in the corporation's treasury may be issued, sold, transferred or otherwise disposed of by vote of the Board of Directors in such manner, for such lawful consideration and on such terms as the Board of Directors may determine.

4.2 Stock Certificates; Uncertificated Shares. The shares of the corporation shall be represented by certificates, provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of the corporation's stock shall be uncertificated shares. Every holder of stock of the corporation represented by certificates shall be entitled to have a certificate, in such form as may be prescribed by law and by the Board of Directors, representing the number of shares held by such holder registered in certificate form. Each such certificate shall be signed in a manner that complies with Section 158 of the General Corporation Law of the State of Delaware.

Each certificate for shares of stock which are subject to any restriction on transfer pursuant to the Certificate of Incorporation, these By-laws, applicable securities laws or any agreement among any number of stockholders or among such holders and the corporation shall have conspicuously noted on the face or back of the certificate either the full text of the restriction or a statement of the existence of such restriction.

If the corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or

restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of each certificate representing shares of such class or series of stock, provided that in lieu of the foregoing requirements there may be set forth on the face or back of each certificate representing shares of such class or series of stock a statement that the corporation will furnish without charge to each stockholder who so requests a copy of the full text of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Within a reasonable time after the issuance or transfer of uncertificated shares, the corporation shall send to the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to Sections 151, 202(a) or 218(a) of the General Corporation Law of the State of Delaware or, with respect to Section 151 of General Corporation Law of the State of Delaware, a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

4.3 Transfers. Shares of stock of the corporation shall be transferable in the manner prescribed by law and in these By-laws. Transfers of shares of stock of the corporation shall be made only on the books of the corporation or by transfer agents designated to transfer shares of stock of the corporation. Subject to applicable law, shares of stock represented by certificates shall be transferred only on the books of the corporation by the surrender to the corporation or its transfer agent of the certificate representing such shares properly endorsed or accompanied by a written assignment or power of attorney properly executed, and with such proof of authority or the authenticity of signature as the corporation or its transfer agent may reasonably require. Except as may be otherwise required by law, by the Certificate of Incorporation or by these By-laws, the corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect to such stock, regardless of any transfer, pledge or other disposition of such stock until the shares have been transferred on the books of the corporation in accordance with the requirements of these By-laws.

4.4 Lost, Stolen or Destroyed Certificates. The corporation may issue a new certificate of stock in place of any previously issued certificate alleged to have been lost, stolen or destroyed, upon such terms and conditions as the Board of Directors may prescribe, including the presentation of reasonable evidence of such loss, theft or destruction and the giving of such indemnity and posting of such bond as the Board of Directors may require for the protection of the corporation or any transfer agent or registrar.

4.5 Record Date. The Board of Directors may fix in advance a date as a record date for the determination of the stockholders entitled to notice of or to vote at any meeting of stockholders, or entitled to receive payment of any dividend or other distribution or allotment of any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action. Such record date shall not precede the date on which the resolution fixing the record date is adopted, and such record date shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 60 days prior to any other action to which such record date relates.

If no record date is fixed, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day before the day on which notice is given, or, if notice is waived, at the close of business on the day before the day on which the meeting is held. If no record date is fixed, the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating to such purpose.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

4.6 Regulations. The issue, transfer, conversion and registration of shares of stock of the corporation shall be governed by such other regulations as the Board of Directors may establish.



**ARTICLE V**

**GENERAL PROVISIONS**

5.1 Fiscal Year. Except as from time to time otherwise designated by the Board of Directors, the fiscal year of the corporation shall begin on the first day of January of each year and end on the last day of December in each year.

5.2 Corporate Seal. The corporate seal shall be in such form as shall be approved by the Board of Directors.

5.3 Waiver of Notice. Whenever notice is required to be given by law, by the Certificate of Incorporation or by these By-laws, a written waiver signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before, at or after the time of the event for which notice is to be given, shall be deemed equivalent to notice required to be given to such person. Neither the business nor the purpose of any meeting need be specified in any such waiver. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

5.4 Voting of Securities. Except as the Board of Directors may otherwise designate, the Chief Executive Officer, the President or the Treasurer may waive notice of, vote, or appoint any person or persons to vote, on behalf of the corporation at, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact for this corporation (with or without power of substitution) at, any meeting of stockholders or securityholders of any other entity, the securities of which may be held by this corporation.

5.5 Evidence of Authority. A certificate by the Secretary, or an Assistant Secretary, or a temporary Secretary, as to any action taken by the stockholders, directors, a committee or any officer or representative of the corporation shall as to all persons who rely on the certificate in good faith be conclusive evidence of such action.

5.6 Certificate of Incorporation. All references in these By-laws to the Certificate of Incorporation shall be deemed to refer to the Certificate of Incorporation of the corporation, as amended and in effect from time to time.

5.7 Severability. Any determination that any provision of these By-laws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these By-laws.

5.8 Pronouns. All pronouns used in these By-laws shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person or persons may require.

## **ARTICLE VI**

### **AMENDMENTS**

These By-laws may be altered, amended or repealed, in whole or in part, or new By-laws may be adopted by the Board of Directors or by the stockholders as provided in the Certificate of Incorporation.

**CERULEAN PHARMA INC.**

(f/k/a Tempo Pharmaceuticals, Inc.)

**2007 STOCK INCENTIVE PLAN***Amended as of January 30, 2014<sup>1</sup>***1. Purpose**

The purpose of this 2007 Stock Incentive Plan (the “Plan”) of Cerulean Pharma Inc., a Delaware corporation (the “Company”), is to advance the interests of the Company’s stockholders by enhancing the Company’s ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to better align the interests of such persons with those of the Company’s stockholders. Except where the context otherwise requires, the term “Company” shall include any of the Company’s present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the “Code”) and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the “Board”).

**2. Eligibility**

All of the Company’s employees, officers, directors, consultants and advisors are eligible to be granted options, restricted stock, restricted stock units and other stock-based awards (each, an “Award”) under the Plan. Each person who receives an Award under the Plan is deemed a “Participant”.

**3. Administration and Delegation**

(a) Administration by Board of Directors. The Plan will be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may construe and interpret the terms of the Plan and any Award agreements entered into under the Plan. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient to carry the Plan into effect and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board’s sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award. No director or person acting pursuant to the authority delegated by the Board shall be liable for any action or determination relating to or under the Plan made in good faith.

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<sup>1</sup> See Appendix A for a list of amendments.

(b) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a "Committee"). All references in the Plan to the "Board" shall mean the Board or a Committee of the Board to the extent that the Board's powers or authority under the Plan have been delegated to such Committee.

4. Stock Available for Awards.

(a) Number of Shares. Subject to adjustment under Section 8, Awards may be made under the Plan for up to 18,500,000 shares of common stock, \$0.0001 par value per share, of the Company (the "Common Stock"). If any Award expires or is terminated, surrendered or canceled without having been fully exercised, is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at the original issuance price pursuant to a contractual repurchase right), or results in any Common Stock not being issued, the unused Common Stock covered by such Award shall again be available for the grant of Awards under the Plan. Further, shares of Common Stock tendered to the Company by a Participant to exercise an Award shall be added to the number of shares of Common Stock available for the grant of Awards under the Plan. However, in the case of Incentive Stock Options (as hereinafter defined), the foregoing provisions shall be subject to any limitations under the Code. Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

(b) Substitute Awards. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Awards in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute Awards may be granted on such terms as the Board deems appropriate in the circumstances, notwithstanding any limitations on Awards contained in the Plan. Substitute Awards shall not count against the overall share limit set forth in Section 4(a), except as may be required by reason of Section 422 and related provisions of the Code.

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an "Option") and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable. An Option that is not intended to be an Incentive Stock Option (as hereinafter defined) shall be designated a "Nonstatutory Stock Option".

(b) Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "Incentive Stock Option") shall only be granted to employees of the Company, any of the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Code, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock

Option or for any action taken by the Board, including without limitation the conversion of an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify such exercise price in the applicable option agreement.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement.

(e) Exercise of Option. Options may be exercised by delivery to the Company of a written notice of exercise signed by the proper person or by any other form of notice (including electronic notice) approved by the Board together with payment in full as specified in Section 5(f) for the number of shares for which the Option is exercised. Shares of Common Stock subject to the Option will be delivered by the Company following exercise either as soon as practicable or, subject to such conditions as the Board shall specify, on a deferred basis (with the Company's obligation to be evidenced by an instrument providing for future delivery of the deferred shares at the time or times specified by the Board).

(f) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

(1) in cash or by check, payable to the order of the Company;

(2) except as may otherwise be provided in the applicable option agreement, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) when the Common Stock is registered under the Exchange Act and to the extent provided for in the applicable option agreement or approved by the Board, in its sole discretion, by delivery (either by actual delivery or attestation) of shares of Common Stock owned by the Participant valued at their fair market value as determined by (or in a manner approved by) the Board ("Fair Market Value"), provided (i) such method of payment is then permitted under applicable law, (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent permitted by applicable law and provided for in the applicable option agreement or approved by the Board, in its sole discretion, by (i) delivery of a promissory note of the Participant to the Company on terms determined by the Board, or (ii) payment of such other lawful consideration as the Board may determine; or

(5) by any combination of the above permitted forms of payment.

6. Restricted Stock; Restricted Stock Units

(a) General. The Board may grant Awards entitling recipients to acquire shares of Common Stock (“Restricted Stock”), subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award. Instead of granting Awards for Restricted Stock, the Board may grant Awards entitling the recipient to receive shares of Common Stock to be delivered at the time such shares of Common Stock vest (“Restricted Stock Units”) (Restricted Stock and Restricted Stock Units are each referred to herein as a “Restricted Stock Award”).

(b) Terms and Conditions. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for vesting and repurchase (or forfeiture) and the issue price, if any.

(c) Additional Provisions Relating to Restricted Stock.

(1) Dividends. Participants holding shares of Restricted Stock will be entitled to all ordinary cash dividends paid with respect to such shares, unless otherwise provided by the Board. If any such dividends or distributions are paid in shares, or consist of a dividend or distribution to holders of Common Stock other than an ordinary cash dividend, the shares, cash or other property will be subject to the same restrictions on transferability and forfeitability as the shares of Restricted Stock with respect to which they were paid. Each dividend payment will be made no later than the end of the calendar year in which the dividends are paid to shareholders of that class of stock or, if later, the 15th day of the third month following the date the dividends are paid to shareholders of that class of stock.

(2) Stock Certificates. The Company may require that any stock certificates issued in respect of shares of Restricted Stock shall be deposited in escrow by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant’s death (the “Designated Beneficiary”). In the absence of an effective designation by a Participant, “Designated Beneficiary” shall mean the Participant’s estate.

7. Other Stock-Based Awards

Other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property, may be granted hereunder to Participants (“Other Stock-Based Awards”), including without limitation stock appreciation rights and Awards entitling recipients to receive shares of Common Stock to be delivered in the future. Such Other Stock-Based Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu

of compensation to which a Participant is otherwise entitled. Other Stock-Based Awards may be paid in shares of Common Stock or cash, as the Board shall determine. Subject to the provisions of the Plan, the Board shall determine the terms and conditions of each Other Stock-Based Award, including any purchase price applicable thereto.

8. Adjustments for Changes in Common Stock and Certain Other Events

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under this Plan, (ii) the number and class of securities and exercise price per share of each outstanding Option, (iii) the number of shares subject to and the repurchase price per share subject to each outstanding Restricted Stock Award, and (iv) the terms of each other outstanding Award shall be equitably adjusted by the Company (or substituted Awards may be made, if applicable) in the manner determined by the Board. Without limiting the generality of the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to an outstanding Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(b) Reorganization Events.

(1) Definition. A "Reorganization Event" shall mean: (a) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (b) any exchange of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange transaction or (c) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock Awards. In connection with a Reorganization Event, the Board may take any one or more of the following actions as to all or any (or any portion of) outstanding Awards other than Restricted Stock Awards on such terms as the Board determines: (i) provide that Awards shall be assumed, or substantially equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (ii) upon written notice to a Participant, provide that the Participant's unexercised Options or other unexercised Awards will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant within a specified period following the date of such notice, (iii) provide that outstanding Awards shall become exercisable, realizable, or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Reorganization Event, (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the

Reorganization Event (the "Acquisition Price"), make or provide for a cash payment to a Participant equal to the excess, if any, of (A) the Acquisition Price times the number of shares of Common Stock subject to the Participant's Options or other Awards (to the extent the exercise price does not exceed the Acquisition Price) over (B) the aggregate exercise price of all such outstanding Options or other Awards and any applicable tax withholdings, in exchange for the termination of such Options or other Awards, (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise price thereof and any applicable tax withholdings) and (vi) any combination of the foregoing. In taking any of the actions permitted under this Section 8(b), the Board shall not be obligated by the Plan to treat all Award, or all Awards of the same type, identically.

For purposes of clause (i) above, an Option shall be considered assumed if, following consummation of the Reorganization Event, the Option confers the right to purchase, for each share of Common Stock subject to the Option immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise of Options to consist solely of common stock of the acquiring or succeeding corporation (or an affiliate thereof) equivalent in value (as determined by the Board) to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event.

(3) Consequences of a Reorganization Event on Restricted Stock Awards. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company under each outstanding Restricted Stock Award shall inure to the benefit of the Company's successor and shall, unless the Board determines otherwise, apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Reorganization Event in the same manner and to the same extent as they applied to the Common Stock subject to such Restricted Stock Award. Upon the occurrence of a Reorganization Event involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock Award or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock Awards then outstanding shall automatically be deemed terminated or satisfied.

9. General Provisions Applicable to Awards

(a) Transferability of Awards. Except as the Board may otherwise determine or provide in an Award, Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an Incentive



Stock Option, pursuant to a qualified domestic relations order, and, during the life of the Participant, shall be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees.

(b) Documentation. Each Award shall be evidenced in such form (written, electronic or otherwise) as the Board shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, termination of employment, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. The Participant must satisfy all applicable federal, state, and local or other income and employment tax withholding obligations before the Company will deliver stock certificates or otherwise recognize ownership of Common Stock under an Award. The Company may decide to satisfy the withholding obligations through additional withholding on salary or wages. If the Company elects not to or cannot withhold from other compensation, the Participant must pay the Company the full amount, if any, required for withholding or have a broker tender to the Company cash equal to the withholding obligations. Payment of withholding obligations is due before the Company will issue any shares on exercise or release from forfeiture of an Award or, if the Company so requires, at the same time as is payment of the exercise price unless the Company determines otherwise. If provided for in an Award or approved by the Board in its sole discretion, a Participant may satisfy such tax obligations in whole or in part by delivery of shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value; provided, however, except as otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). Shares surrendered to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements.

(f) Amendment of Award. The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonstatutory Stock Option, provided that the Participant's consent to such action shall be required unless (A) the Board determines that the action, taking into account any related action, would not materially and adversely affect the Participant's rights under the Plan or (B) the change is permitted under Section 8 hereof.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(h) Acceleration. The Board may at any time provide that any Award shall become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

10. Miscellaneous

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares.

(c) Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board. No Awards shall be granted under the Plan after the expiration of 10 years from the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company's stockholders, but Awards previously granted may extend beyond that date.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time; provided that if at any time the approval of the Company's stockholders is required as to any modification or amendment under Section 422 of the Code or any successor provision with respect to Incentive Stock Options, the Board may not effect such modification or amendment without such approval. Unless otherwise specified in the amendment, any amendment to the Plan adopted in accordance with this Section 10(d) shall apply to, and be binding on the holders of, all Awards outstanding under the Plan at the time the amendment is adopted, provided the Board determines that such amendment does not materially and adversely affect the rights of Participants under the Plan.

(e) Authorization of Sub-Plans. The Board may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable blue sky, securities or tax laws of various jurisdictions. The Board shall establish such sub-plans by adopting supplements

to this Plan containing (i) such limitations on the Board's discretion under the Plan as the Board deems necessary or desirable or (ii) such additional terms and conditions not otherwise inconsistent with the Plan as the Board shall deem necessary or desirable. All supplements adopted by the Board shall be deemed to be part of the Plan, but each supplement shall apply only to Participants within the affected jurisdiction and the Company shall not be required to provide copies of any supplement to Participants in any jurisdiction which is not the subject of such supplement.

(f) Compliance with Code Section 409A. No Award shall provide for deferral of compensation that does not comply with Section 409A of the Code, unless the Board, at the time of grant, specifically provides that the Award is not intended to comply with Section 409A of the Code. The Company shall have no liability to a Participant, or any other party, if an Award that is intended to be exempt from, or compliant with, Section 409A is not so exempt or compliant or for any action taken by the Board.

(g) Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than such state.

**CERULEAN PHARMA INC.**

(f/k/a Tempo Pharmaceuticals, Inc.)

**2007 STOCK INCENTIVE PLAN**

**CALIFORNIA SUPPLEMENT**

Pursuant to Section 10(e) of the Plan, the Board has adopted this supplement for purposes of satisfying the requirements of Section 25102(o) of the California Law:

Any Awards granted under the Plan to a Participant who is a resident of the State of California on the date of grant (a "California Participant") shall be subject to the following additional limitations, terms and conditions:

1. Additional Limitations on Options.

(a) Minimum Vesting Rate. Except in the case of Options granted to California Participants who are officers, directors, managers, consultants or advisors of the Company or its affiliates (which Options may become exercisable at whatever rate is determined by the Board), Options granted to California Participants shall become exercisable at a rate of not less than 20% per year over five years from the date of grant; provided, that, such Options may be subject to such reasonable forfeiture conditions as the Board may choose to impose and which are not inconsistent with Section 260.140.41 of the California Regulations.

(b) Minimum Exercise Price. The exercise price of Options granted to California Participants may not be less than 85% of the Fair Market Value of the Common Stock on the date of grant in the case of a Nonstatutory Stock Option or less than 100% of the Fair Market Value of the Common Stock on the date of grant in the case of an Incentive Stock Option; provided, however, that if the California Participant is a person who owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or its parent or subsidiary corporations, the exercise price shall be not less than 110% of the Fair Market Value of the Common Stock on the date of grant.

(c) Maximum Duration of Options. No Options granted to California Participants shall have a term in excess of 10 years measured from the Option grant date.

(d) Minimum Exercise Period Following Termination. Unless a California Participant's employment is terminated for cause (as defined by applicable law, the terms of any contract of employment between the Company and such Participant, or in the instrument evidencing the grant of such Participant's Option), in the event of termination of employment of such Participant, such Participant shall have the right to exercise an Option, to the extent that he or she was otherwise entitled to exercise such Option on the date employment terminated, as follows: (i) at least six months from the date of termination, if termination was caused by such Participant's death or "permanent and total disability" (within the meaning of Section 22(e)(3) of the Code) and (ii) at least 30 days from the date of termination, if termination was caused other than by such Participant's death or "permanent and total disability" (within the meaning of Section 22(e)(3) of the Code).

(e) Limitation on Repurchase Rights. If an Option granted to a California Participant gives the Company the right to repurchase shares of Common Stock issued pursuant to the Plan upon termination of employment of such Participant, the terms of such repurchase right must comply with Section 260.140.41(k) of the California Regulations.

2. Additional Limitations for Restricted Stock Awards.

(a) Minimum Purchase Price. The purchase price for a Restricted Stock Award granted to a California Participant shall be not less than 85% of the Fair Market Value of the Common Stock at the time such Participant is granted the right to purchase shares under the Plan or at the time the purchase is consummated; provided, however, that if such Participant is a person who owns stock possessing more than 10% of the total combined voting power or value of all classes of stock of the Company or its parent or subsidiary corporations, the purchase price shall be not less than 100% of the Fair Market Value of the Common Stock at the time such Participant is granted the right to purchase shares under the Plan or at the time the purchase is consummated.

(b) Limitation of Repurchase Rights. If a Restricted Stock Award granted to a California Participant gives the Company the right to repurchase shares of Common Stock issued pursuant to the Plan upon termination of employment of such Participant, the terms of such repurchase right must comply with Section 260.140.42(h) of the California Regulations.

3. Additional Limitations for Other Stock-Based Awards. The terms of all Awards granted to a California Participant under Section 7 of the Plan shall comply, to the extent applicable, with Section 260.140.41 or Section 260.140.42 of the California Regulations.

4. Additional Requirement to Provide Information to California Participants. The Company shall provide to each California Participant and to each California Participant who acquires Common Stock pursuant to the Plan, not less frequently than annually, copies of annual financial statements (which need not be audited). The Company shall not be required to provide such statements to key employees whose duties in connection with the Company assure their access to equivalent information.

5. Additional Limitations on Timing of Awards. No Award granted to a California Participant shall become exercisable, vested or realizable, as applicable to such Award, unless the Plan has been approved by the holders of a majority of the Company's outstanding voting securities within 12 months before or after the date the Plan was adopted by the Board.

6. Additional Limitations Relating to Definition of Fair Market Value. For purposes of Section 1(b) and 2(a) of this supplement, "Fair Market Value" shall be determined in a manner not inconsistent with Section 260.140.50 of the California Regulations.

7. Additional Restriction Regarding Recapitalizations, Stock Splits, Etc. For purposes of Section 8 of the Plan, in the event of a stock split, reverse stock split, stock dividend, recapitalization, combination, reclassification or other distribution of the Company's securities, the number of securities allocated to each California Participant must be adjusted proportionately and without the receipt by the Company of any consideration from any California Participant.

## Appendix A

### List of Amendments

1. Originally approved by the Board on February 16, 2007 and by the stockholders on March 20, 2007, with 1,250,000 shares available for Awards under the Plan.
2. Amendment increasing the number of shares available for Awards under the Plan from 1,250,000 to 1,735,000, approved by the Board on May 3, 2007 and by the stockholders on May 7, 2007.†
3. Amendment increasing the number of shares available for Awards under the Plan from 1,735,000 to 3,735,000, approved by the Board on March 27, 2009 and by the stockholders on April 6, 2009.
4. Amendment increasing the number of shares available for Awards under the Plan from 3,735,000 to 4,185,000, approved by the Board on September 18, 2009 and by the stockholders on September 29, 2009.
5. Amendment increasing the number of shares available for Awards under the Plan from 4,185,000 to 4,385,000, approved by the Board on March 4, 2010 and by the stockholders on March 23, 2010.
6. Amendment increasing the number of shares available for Awards under the Plan from 4,385,000 to 11,985,000, approved by the Board and the stockholders on November 12, 2010.
7. Amendment increasing the number of shares available for Awards under the Plan from 11,985,000 to 12,000,000, approved by the Board on September 16, 2011 and by the stockholders on October 4, 2011.
8. Amendment increasing the number of shares available for Awards under the Plan from 12,000,000 to 13,650,000, approved by the Board and the stockholders on December 2, 2011.
9. Amendment increasing the number of shares available for Awards under the Plan from 13,650,000 to 15,900,000, approved by the Board and the stockholders on November 29, 2012.
10. Amendment increasing the number of shares available for Awards under the Plan from 15,900,000 to 16,900,000, approved by the Board on December 27, 2012 and the stockholders on January 8, 2013.
11. Amendment increasing the number of shares available for Awards under the Plan from 16,900,000 to 18,200,000, approved by the Board on February 7, 2013 and the stockholders on February 18, 2013.
12. Amendment increasing the number of shares available for Awards under the Plan from 18,200,000 to 18,500,000 approved by the Board on January 27, 2014 and the stockholders on January 30, 2014.

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† Please note that the stockholder consent to this amendment inadvertently indicated that an increase of 1,750,000 shares, rather than 1,735,000 shares, was approved. The Board minutes contain the correct figure of 1,735,000 shares. The stockholders approved the appropriate number of shares in subsequent consents.

## CERULEAN PHARMA INC.

Incentive Stock Option Agreement  
Granted Under 2007 Stock Incentive Plan1. Grant of Option.

This agreement evidences the grant by Cerulean Pharma Inc., a Delaware corporation (the "Company"), on \_\_\_\_\_, 201\_\_\_\_ (the "Grant Date") to \_\_\_\_\_, an employee of the Company (the "Participant"), of an option to purchase, in whole or in part, on the terms provided herein and in the Company's 2007 Stock Incentive Plan, as amended (the "Plan"), a total of \_\_\_\_\_ shares (the "Shares") of common stock, \$0.0001 par value per share, of the Company ("Common Stock") at \$ \_\_\_\_\_ per Share. Unless earlier terminated, this option shall expire at 5:00 p.m., Eastern time, on the date ten years after the date immediately prior to the Grant Date (the "Final Exercise Date").

It is intended that the option evidenced by this agreement shall be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code"). Except as otherwise indicated by the context, the term "Participant", as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

2. Vesting Schedule.

This option will become exercisable ("vest") as to [ \_\_\_\_\_ ].

The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all Shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option under Section 3 hereof or the Plan.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be in writing, signed by the Participant, and received by the Company at its principal office, accompanied by this agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of shares covered hereby, provided that no partial exercise of this option may be for any fractional share.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he or she exercises this option, is, and has been at all times since the Grant Date, an employee or

officer of, or consultant or advisor to, the Company or any parent or subsidiary of the Company as defined in Section 424(e) or (f) of the Code (an “Eligible Participant”).

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon written notice to the Participant from the Company describing such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he or she is an Eligible Participant and the Company has not terminated such relationship for “cause” as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Termination for Cause. If, prior to the Final Exercise Date, the Participant’s employment is terminated by the Company for Cause (as defined below), the right to exercise this option shall terminate immediately upon the effective date of such termination of employment. If, prior to the Final Exercise Date, the Participant is given notice by the Company of the termination of his or her employment by the Company for Cause, and the effective date of such employment termination is subsequent to the date of delivery of such notice, the right to exercise this option shall be suspended from the time of the delivery of such notice until the earlier of (i) such time as it is determined or otherwise agreed that the Participant’s employment shall not be terminated for Cause as provided in such notice or (ii) the effective date of such termination of employment (in which case the right to exercise this option shall, pursuant to the preceding sentence, terminate upon the effective date of such termination of employment). If the Participant is party to an employment or severance agreement with the Company that contains a definition of “cause” for termination of employment, “Cause” shall have the meaning ascribed to such term in such agreement. Otherwise, “Cause” shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant shall be considered to have been discharged for Cause if the Company determines, within 30 days after the Participant’s resignation, that discharge for cause was warranted.



(f) Voting Agreement and Right of First Refusal and Co-Sale Agreement. If any exercise of this option by the Participant would result in the Participant holding more than one percent (1%) of the outstanding shares of capital stock of the Company after giving effect to such exercise, the Participant, prior to and as a condition to such exercise, shall execute and deliver or shall have executed and delivered to the Company a Joinder Agreement, substantially in the forms attached hereto as Exhibit A-1 and Exhibit A-2, respectively, to each of (i) the Fourth Amended and Restated Voting Agreement dated as of November 12, 2010 by and between the Company and the stockholders of the Company named therein, as it may be amended and/or restated from time to time, and (ii) the Fourth Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of November 12, 2010, by and between the Company and the stockholders of the Company named therein, as it may be amended and/or restated from time to time, whereby the Participant agrees to become a party to such agreement and be bound by the terms thereof in the capacity of an "Additional Stockholder" thereunder. The Participant shall not be obligated to execute and deliver a Joinder Agreement if (x) the agreement to which it relates has expired or been terminated or (y) the Participant is already a party to the relevant agreement. Upon request, the Company shall provide the Participant a copy of the agreements referenced in this Section 3(f).

4. Company Right of First Refusal.

(a) Notice of Proposed Transfer. If the Participant proposes to sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively, "transfer") any Shares acquired upon exercise of this option, then the Participant shall first give written notice of the proposed transfer (the "Transfer Notice") to the Company. The Transfer Notice shall name the proposed transferee and state the number of such Shares the Participant proposes to transfer (the "Offered Shares"), the price per share and all other material terms and conditions of the transfer.

(b) Company Right to Purchase. For 30 days following its receipt of such Transfer Notice, the Company shall have the option to purchase all or part of the Offered Shares at the price and upon the terms set forth in the Transfer Notice. In the event the Company elects to purchase all or part of the Offered Shares, it shall give written notice of such election to the Participant within such 30-day period. Within 10 days after his or her receipt of such notice, the Participant shall tender to the Company at its principal offices the certificate or certificates representing the Offered Shares to be purchased by the Company, duly endorsed in blank by the Participant or with duly endorsed stock powers attached thereto, all in a form suitable for transfer of the Offered Shares to the Company. Promptly following receipt of such certificate or certificates, the Company shall deliver or mail to the Participant a check in payment of the purchase price for such Offered Shares; provided that if the terms of payment set forth in the Transfer Notice were other than cash against delivery, the Company may pay for the Offered Shares on the same terms and conditions as were set forth in the Transfer Notice; and provided further that any delay in making such payment shall not invalidate the Company's exercise of its option to purchase the Offered Shares.

(c) Shares Not Purchased By Company. If the Company does not elect to acquire all of the Offered Shares, the Participant may, within the 30-day period following the expiration of the option granted to the Company under subsection (b) above, transfer the Offered Shares which the Company has not elected to acquire to the proposed transferee, provided that such transfer shall not be on terms and conditions more favorable to the transferee than those contained in the Transfer Notice. Notwithstanding any of the above, all Offered Shares transferred pursuant to this Section 4 shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(d) Consequences of Non-Delivery. After the time at which the Offered Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Offered Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Offered Shares, but shall, insofar as permitted by law, treat the Company as the owner of such Offered Shares.

(e) Exempt Transactions. The following transactions shall be exempt from the provisions of this Section 4:

(1) any transfer of Shares to or for the benefit of any spouse, child or grandchild of the Participant, or to a trust for their benefit;

(2) any transfer pursuant to an effective registration statement filed by the Company under the Securities Act of 1933, as amended (the "Securities Act"); and

(3) the sale of all or substantially all of the shares of capital stock of the Company (including pursuant to a merger or consolidation);

provided, however, that in the case of a transfer pursuant to clause (1) above, such Shares shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(f) Assignment of Company Right. The Company may assign its rights to purchase Offered Shares in any particular transaction under this Section 4 to one or more persons or entities.

(g) Termination. The provisions of this Section 4 shall terminate upon the earlier of the following events:

(1) the closing of the sale of shares of Common Stock in an underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act; or

(2) the sale of all or substantially all of the capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Common Stock immediately prior to such transaction beneficially own, directly or indirectly, more than 75% of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

(h) No Obligation to Recognize Invalid Transfer. The Company shall not be required (1) to transfer on its books any of the Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Section 4, or (2) to treat as owner of such Shares or to pay dividends to any transferee to whom any such Shares shall have been so sold or transferred.

(i) Legends. The certificate representing Shares shall bear a legend substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer of the Company securities):

“The shares represented by this certificate are subject to a right of first refusal in favor of the Company, as provided in a certain stock option agreement with the Company.”

5. Agreement in Connection with Public Offering.

The Participant agrees, in connection with the initial underwritten public offering of the Company’s securities pursuant to a registration statement under the Securities Act, (i) not to sell, make short sale of, loan, grant any options for the purchase of, or otherwise dispose of any shares of Common Stock held by the Participant (other than those shares included in the offering) without the prior written consent of the Company or the underwriters managing such initial underwritten public offering of the Company’s securities for a period of 180 days from the effective date of such registration statement, and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering.

6. Tax Matters.

(a) Withholding. No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

(b) Disqualifying Disposition. If the Participant disposes of Shares acquired upon exercise of this option within two years from the Grant Date or one year after such Shares were acquired pursuant to exercise of this option, the Participant shall notify the Company in writing of such disposition.

7. Nontransferability of Option.

This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

8. Provisions of the Plan.

This option is subject to the provisions of the Plan (including the provisions relating to amendments to the Plan), a copy of which is furnished to the Participant with this option.

IN WITNESS WHEREOF, the Company has caused this option to be executed under its corporate seal by its duly authorized officer. This option shall take effect as a sealed instrument.

**CERULEAN PHARMA INC.**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

PARTICIPANT'S ACCEPTANCE

The undersigned hereby accepts the foregoing option and agrees to the terms and conditions thereof. The undersigned hereby acknowledges receipt of a copy of the Company's 2007 Stock Incentive Plan.

PARTICIPANT:

\_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

**EXHIBIT A**

**NOTICE OF STOCK OPTION EXERCISE**

Date:

Cerulean Pharma Inc.  
840 Memorial Drive  
Cambridge, MA 02139

Attention: Treasurer

Dear Sir or Madam:

I am the holder of an Incentive Stock Option granted to me under the Cerulean Pharma Inc. (the "Company") 2007 Stock Incentive Plan on for the purchase of \_\_\_\_\_ shares of Common Stock of the Company at a purchase price of \$ \_\_\_\_\_ per share.

I hereby exercise my option to purchase \_\_\_\_\_ shares of Common Stock (the "Shares"), for which I have enclosed [cash] [a personal check] in the amount of \_\_\_\_\_. Please register my stock certificate as follows:

Name(s): \_\_\_\_\_

\_\_\_\_\_

Address: \_\_\_\_\_

Tax I.D. #: \_\_\_\_\_

I represent, warrant and covenant as follows:

1. I am purchasing the Shares for my own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933 (the "Securities Act"), or any rule or regulation under the Securities Act.

2. I have had such opportunity as I have deemed adequate to obtain from representatives of the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company.
3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.
4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period.
5. I understand that (i) the Shares have not been registered under the Securities Act and are “restricted securities” within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least one year and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

Very truly yours,

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(Signature)

**EXHIBIT A-1**

**FORM OF JOINDER AGREEMENT – VOTING AGREEMENT**

**JOINDER AGREEMENT TO FOURTH AMENDED AND RESTATED  
VOTING AGREEMENT**

The undersigned hereby agrees, effective as of the date hereof, to become a party to that certain Fourth Amended and Restated Voting Agreement dated as of November 12, 2010, by and among Cerulean Pharma Inc. (the “Company”) and the parties named therein, as amended from time to time (the “Agreement”). The undersigned shall be an “Additional Stockholder” (as defined in the Agreement) for all purposes of the Agreement, and agrees by signing below to be bound by all of the obligations of an Additional Stockholder thereunder.

Date:

\_\_\_\_\_  
[SIGNATURE OF UNDERSIGNED]

\_\_\_\_\_  
[NAME OF UNDERSIGNED]



**EXHIBIT A-2**

**FORM OF JOINDER AGREEMENT – RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT**

**JOINDER AGREEMENT TO FOURTH AMENDED AND RESTATED  
RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT**

The undersigned hereby agrees, effective as of the date hereof, to become a party to that certain Fourth Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of November 12, 2010, by and among Cerulean Pharma Inc. (the “Company”) and the parties named therein, as amended from time to time (the “Agreement”). The undersigned shall be an “Additional Stockholder” (as defined in the Agreement) for all purposes of the Agreement, and agrees by signing below to be bound by all of the obligations of an Additional Stockholder thereunder.

Date:

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**[SIGNATURE OF UNDERSIGNED]**

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**[NAME OF UNDERSIGNED]**

## CERULEAN PHARMA INC.

Nonstatutory Stock Option Agreement  
Granted Under 2007 Stock Incentive Plan1. Grant of Option.

This agreement evidences the grant by Cerulean Pharma Inc., a Delaware corporation (the "Company"), on \_\_\_\_\_, 201 (the "Grant Date") to \_\_\_\_\_, [an employee] [a consultant] of the Company (the "Participant"), of an option to purchase, in whole or in part, on the terms provided herein and in the Company's 2007 Stock Incentive Plan, as amended (the "Plan"), a total of \_\_\_\_\_ shares (the "Shares") of common stock, \$0.0001 par value per share, of the Company ("Common Stock") at \$ \_\_\_\_\_ per Share. Unless earlier terminated, this option shall expire at 5:00 p.m., Eastern time, on the date ten years after the date immediately prior to the Grant Date (the "Final Exercise Date").

It is intended that the option evidenced by this agreement shall not be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code"). Except as otherwise indicated by the context, the term "Participant", as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

2. Vesting Schedule.

This option will become exercisable ("vest") as to [ \_\_\_\_\_ ].

The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all Shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option under Section 3 hereof or the Plan.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be in substantially the form attached hereto as Exhibit A, signed by the Participant, and received by the Company at its principal office, accompanied by this agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of shares covered hereby, provided that no partial exercise of this option may be for any fractional share.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he or she exercises this option, is, and has been at all times since the Grant Date, an employee of, or consultant or advisor to, the Company or any other entity the employees, officers, directors, consultants, or advisors of which are eligible to receive option grants under the Plan (an "Eligible Participant").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon written notice to the Participant from the Company describing such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he or she is an Eligible Participant and the Company has not terminated such relationship for "cause" as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Termination for Cause. If, prior to the Final Exercise Date, the Participant's employment or other relationship with the Company is terminated by the Company for Cause (as defined below), the right to exercise this option shall terminate immediately upon the effective date of such termination of employment or other relationship. If, prior to the Final Exercise Date, the Participant is given notice by the Company of the termination of his or her employment or other relationship by the Company for Cause, and the effective date of such employment or other termination is subsequent to the date of the delivery of such notice, the right to exercise this option shall be suspended from the time of the delivery of such notice until the earlier of (i) such time as it is determined or otherwise agreed that the Participant's employment or other relationship shall not be terminated for Cause as provided in such notice or (ii) the effective date of such termination of employment or other relationship (in which case the right to exercise this option shall, pursuant to the preceding sentence, terminate immediately upon the effective date of such termination of employment or other relationship). If the Participant is party to an employment, consulting or severance agreement with the Company that contains a definition of "cause" for termination of employment or other relationship, "Cause" shall have the meaning ascribed to such term in such agreement. Otherwise, "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant shall be considered to have been discharged for "Cause" if the Company determines, within 30 days after the Participant's resignation, that discharge for cause was warranted.

(f) Voting Agreement and Right of First Refusal and Co-Sale Agreement. If any exercise of this option by the Participant would result in the Participant holding more than one

percent (1%) of the outstanding shares of capital stock of the Company after giving effect to such exercise, the Participant, prior to and as a condition to such exercise, shall execute and deliver or shall have executed and delivered to the Company a Joinder Agreement, substantially in the forms attached hereto as Exhibit A-1 and Exhibit A-2, respectively, to each of (i) the Fourth Amended and Restated Voting Agreement dated as of November 12, 2010 by and between the Company and the stockholders of the Company named therein, as it may be amended and/or restated from time to time, and (ii) the Fourth Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of November 12, 2010, by and between the Company and the stockholders of the Company named therein, as it may be amended and/or restated from time to time, whereby the Participant agrees to become a party to such agreement and be bound by the terms thereof in the capacity of an "Additional Stockholder" thereunder. The Participant shall not be obligated to execute and deliver a Joinder Agreement if (x) the agreement to which it relates has expired or been terminated or (y) the Participant is already a party to the relevant agreement. Upon request, the Company shall provide the Participant a copy of the agreements referenced in this Section 3(f).

4. Company Right of First Refusal.

(a) Notice of Proposed Transfer. If the Participant proposes to sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively, "transfer") any Shares acquired upon exercise of this option, then the Participant shall first give written notice of the proposed transfer (the "Transfer Notice") to the Company. The Transfer Notice shall name the proposed transferee and state the number of such Shares the Participant proposes to transfer (the "Offered Shares"), the price per share and all other material terms and conditions of the transfer.

(b) Company Right to Purchase. For 30 days following its receipt of such Transfer Notice, the Company shall have the option to purchase all or part of the Offered Shares at the price and upon the terms set forth in the Transfer Notice. In the event the Company elects to purchase all or part of the Offered Shares, it shall give written notice of such election to the Participant within such 30-day period. Within 10 days after his or her receipt of such notice, the Participant shall tender to the Company at its principal offices the certificate or certificates representing the Offered Shares to be purchased by the Company, duly endorsed in blank by the Participant or with duly endorsed stock powers attached thereto, all in a form suitable for transfer of the Offered Shares to the Company. Promptly following receipt of such certificate or certificates, the Company shall deliver or mail to the Participant a check in payment of the purchase price for such Offered Shares; provided that if the terms of payment set forth in the Transfer Notice were other than cash against delivery, the Company may pay for the Offered Shares on the same terms and conditions as were set forth in the Transfer Notice; and provided further that any delay in making such payment shall not invalidate the Company's exercise of its option to purchase the Offered Shares.

(c) Shares Not Purchased By Company. If the Company does not elect to acquire all of the Offered Shares, the Participant may, within the 30-day period following the expiration of the option granted to the Company under subsection (b) above, transfer the Offered Shares which the Company has not elected to acquire to the proposed transferee, provided that such transfer shall not be on terms and conditions more favorable to the transferee than those contained in the

Transfer Notice. Notwithstanding any of the above, all Offered Shares transferred pursuant to this Section 4 shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(d) Consequences of Non-Delivery. After the time at which the Offered Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Offered Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Offered Shares, but shall, insofar as permitted by law, treat the Company as the owner of such Offered Shares.

(e) Exempt Transactions. The following transactions shall be exempt from the provisions of this Section 4:

(1) any transfer of Shares to or for the benefit of any spouse, child or grandchild of the Participant, or to a trust for their benefit;

(2) any transfer pursuant to an effective registration statement filed by the Company under the Securities Act of 1933, as amended (the "Securities Act"); and

(3) the sale of all or substantially all of the shares of capital stock of the Company (including pursuant to a merger or consolidation);

provided, however, that in the case of a transfer pursuant to clause (1) above, such Shares shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(f) Assignment of Company Right. The Company may assign its rights to purchase Offered Shares in any particular transaction under this Section 4 to one or more persons or entities.

(g) Termination. The provisions of this Section 4 shall terminate upon the earlier of the following events:

(1) the closing of the sale of shares of Common Stock in an underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act; or

(2) the sale of all or substantially all of the capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Common Stock immediately prior to such transaction beneficially own, directly or indirectly, more than 75% of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

(h) No Obligation to Recognize Invalid Transfer. The Company shall not be required (1) to transfer on its books any of the Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Section 4, or (2) to treat as owner of such Shares or to pay dividends to any transferee to whom any such Shares shall have been so sold or transferred.

(i) Legends. The certificate representing Shares shall bear a legend substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer of the Company securities):

“The shares represented by this certificate are subject to a right of first refusal in favor of the Company, as provided in a certain stock option agreement with the Company.”

5. Agreement in Connection with Public Offering.

The Participant agrees, in connection with the initial underwritten public offering of the Company’s securities pursuant to a registration statement under the Securities Act, (i) not to sell, make short sale of, loan, grant any options for the purchase of, or otherwise dispose of any shares of Common Stock held by the Participant (other than those shares included in the offering) without the prior written consent of the Company or the underwriters managing such initial underwritten public offering of the Company’s securities for a period of 180 days from the effective date of such registration statement, and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering.

6. Withholding.

No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

7. Nontransferability of Option.

This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

8. Provisions of the Plan.

This option is subject to the provisions of the Plan (including the provisions relating to amendments to the Plan), a copy of which is furnished to the Participant with this option.

IN WITNESS WHEREOF, the Company has caused this option to be executed under its corporate seal by its duly authorized officer. This option shall take effect as a sealed instrument.

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**CERULEAN PHARMA INC.**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

PARTICIPANT'S ACCEPTANCE

The undersigned hereby accepts the foregoing option and agrees to the terms and conditions thereof. The undersigned hereby acknowledges receipt of a copy of the Company's 2007 Stock Incentive Plan.

PARTICIPANT:

\_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_



**EXHIBIT A**

**NOTICE OF STOCK OPTION EXERCISE**

Date:

Cerulean Pharma Inc.  
840 Memorial Drive  
Cambridge, MA 02139

Attention: Treasurer

Dear Sir or Madam:

I am the holder of a Nonstatutory Stock Option granted to me under the Cerulean Pharma Inc. (the "Company") 2007 Stock Incentive Plan on for the purchase of \_\_\_\_\_ shares of Common Stock of the Company at a purchase price of \$ \_\_\_\_\_ per share.

I hereby exercise my option to purchase \_\_\_\_\_ shares of Common Stock (the "Shares"), for which I have enclosed [cash] [a personal check] in the amount of \_\_\_\_\_. Please register my stock certificate as follows:

Name(s): \_\_\_\_\_

\_\_\_\_\_

Address: \_\_\_\_\_

Tax I.D. #: \_\_\_\_\_

I represent, warrant and covenant as follows:

1. I am purchasing the Shares for my own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933 (the "Securities Act"), or any rule or regulation under the Securities Act.

2. I have had such opportunity as I have deemed adequate to obtain from representatives of the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company.
3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.
4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period.
5. I understand that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least one year and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

Very truly yours,

---

(Signature)

**EXHIBIT A-1**

**FORM OF JOINDER AGREEMENT – VOTING AGREEMENT**

**JOINDER AGREEMENT TO FOURTH AMENDED AND RESTATED  
VOTING AGREEMENT**

The undersigned hereby agrees, effective as of the date hereof, to become a party to that certain Fourth Amended and Restated Voting Agreement dated as of November 12, 2010, by and among Cerulean Pharma Inc. (the “Company”) and the parties named therein, as amended from time to time (the “Agreement”). The undersigned shall be an “Additional Stockholder” (as defined in the Agreement) for all purposes of the Agreement, and agrees by signing below to be bound by all of the obligations of an Additional Stockholder thereunder.

Date:

\_\_\_\_\_  
[SIGNATURE OF UNDERSIGNED]

\_\_\_\_\_  
[NAME OF UNDERSIGNED]

**EXHIBIT A-2**

**FORM OF JOINDER AGREEMENT – RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT**

**JOINDER AGREEMENT TO FOURTH AMENDED AND RESTATED  
RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT**

The undersigned hereby agrees, effective as of the date hereof, to become a party to that certain Fourth Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of November 12, 2010, by and among Cerulean Pharma Inc. (the “Company”) and the parties named therein, as amended from time to time (the “Agreement”). The undersigned shall be an “Additional Stockholder” (as defined in the Agreement) for all purposes of the Agreement, and agrees by signing below to be bound by all of the obligations of an Additional Stockholder thereunder.

Date:

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**[SIGNATURE OF UNDERSIGNED]**

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**[NAME OF UNDERSIGNED]**

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. Double asterisks denote omissions.

## LICENSE AGREEMENT

**THIS AGREEMENT** is effective as of the 22<sup>nd</sup> day of May, 2000 (the "Effective Date"), between **CALIFORNIA INSTITUTE OF TECHNOLOGY**, 1200 East California Boulevard, Pasadena, California 91125 ("Caltech") and **INSERT THERAPEUTICS, INC.**, a Delaware corporation, 657 South Grand Avenue, Pasadena, CA 91105 ("Licensee").

**WHEREAS**, Caltech has been engaged in basic research in the field of synthetic polymers for use primarily in drug delivery applications;

**WHEREAS**, that research led to the United States patents, patent applications and other inventions listed in Exhibit A, which are owned by Caltech;

**WHEREAS**, Licensee is desirous of obtaining, and Caltech wishes to grant to Licensee, an exclusive license to the Licensed Patent Rights (as defined in Paragraph 1.5) and Improvements thereof in the Field (as defined in Paragraphs 1.2 and 1.12) and a nonexclusive license to the Technology (as defined in Paragraph 1.6).

**NOW, THEREFORE**, the parties agree as follows:

### ARTICLE 1 DEFINITIONS

**1.1 "Licensed Product"** means any product, device, service or system in the Field which is covered by, or is made by a process covered by, any Valid Claim of any Licensed Patent Rights or a patent claiming an Improvement, or which utilizes the Technology.

**1.2 "Field"** means synthetic polymers for drug delivery and any other uses.

**1.3 "Deductible Expenses"** means the following items of expense incurred in connection with sales of Licensed Products to the extent paid or allowed by Licensee or a Related Company and included in accordance with recognized principles of accounting in the gross sales price billed: (i) sales, use or turnover taxes; (ii) excise, value added or other taxes, custom duties or consular fees; (iii) transportation, freight, and handling charges, and insurance on shipments to customers; (iv) trade, cash or quantity discounts or rebates to the extent actually granted (including Medicaid and other government-mandated rebates); (v) agent fees or commissions and any other fees paid or allowed to distributors; (vi) rebates, refunds, and credits for any rejected or returned Licensed Products or because of retroactive price reductions, rebates or chargebacks; and (vii) uncollected accounts receivable attributable to sales of Licensed Products.

**1.4 "Related Company"** means any corporation, limited liability company or other legal entity directly or indirectly controlled by Licensee or its successors or assigns, or any successor or assign of such an entity. For the purpose of this Agreement, "control" shall mean the direct or indirect ownership of at least fifty percent (50%) of the outstanding shares or other voting rights of the subject entity to elect directors.

**1.5 “Licensed Patent Rights”** means (a) rights under all domestic and foreign patents and patent applications listed in Exhibit A attached hereto and all patents and patent applications that describe and claim inventions set forth in the invention disclosures listed on Exhibit A; any patents which issue on the applications listed in Exhibit A or any applications that claim inventions set forth in the invention disclosures set forth on Exhibit A; all reissues, reexaminations, renewals, extensions, divisionals, continuations, and continuations-in-part of the foregoing patents and patent applications; and any foreign counterparts and any other forms of protection directed to the inventions covered by the patents or patent applications and invention disclosures listed in Exhibit A, and (b) all patent applications hereafter filed and owned by Caltech that claim an Improvement, together with any and all patents that issue therefrom, and all related divisionals, continuations, continuations-in-part, reissues, renewals, extensions or additions to any such patents and patent applications.

**1.6 “Caltech Technology”** means the Licensed Patent Rights, Improvements and the Technology.

**1.7 “Technology”** means all proprietary information, know-how, procedures, methods, prototypes, designs, technical data, reports, antibodies, plasmids, vectors, nucleic acid sequences, compounds, reagents, preclinical data, and clinical data owned by Caltech that are used in the Licensed Products, but which are not the subject of the Licensed Patent Rights. Subject to the foregoing, inventions which (i) are the subject of applications for patents listed in Exhibit A or applications that claim Improvements, or applications which claim priority from such applications, and (ii) are not claimed in an issued patent included in the Licensed Patent Rights shall be considered to be Technology.

**1.8 “Net Revenues”** means the combined amount received by Licensee and Related Companies from the first sale to unrelated third parties of Licensed Products, less Deductible Expenses.

**1.9 “Valid Claim”** means (a) an issued claim of an issued patent within the Licensed Patent Rights or a patent claiming an Improvement thereof, which has not (i) expired or been canceled, (ii) been declared invalid by an unreversed and unappealable decision of a court or other appropriate body of competent jurisdiction, (iii) been admitted to be invalid or unenforceable through reissue, disclaimer or otherwise, and/or (iv) been abandoned in accordance with or as permitted by the terms of this Agreement or by mutual written agreement; or (b) a claim included in a pending patent application within the Licensed Patent Rights that is being actively prosecuted in accordance with this Agreement and which has not been (i) canceled, (ii) withdrawn from consideration, (iii) finally determined to be unallowable by the applicable governmental authority (and from which no appeal is or can be taken), and/or (iv) abandoned in accordance with or as permitted by the terms of this Agreement or by mutual written consent.

**1.10 “Stock Purchase Agreement”** means that certain Stock Purchase Agreement entered into by the parties on an even date herewith, a copy of which is appended hereto as Exhibit B.

**1.11 "Sublicensee"** shall mean, with respect to a particular Licensed Product, a third party to whom Licensee has granted a license or sublicense under the Caltech Technology to develop, make, have made, use and sell such Licensed Product.

**1.12 "Improvements"** shall mean any future invention conceived, reduced to practice or otherwise developed in the laboratory of Dr. Mark E. Davis at Caltech, either solely or jointly with Licensee, which is dominated by the claims of one or more of the Licensed Patent Rights set forth in Section 1.5(a).

## **ARTICLE 2 PATENT LICENSE GRANT**

**2.1** Caltech hereby grants to Licensee the following licenses:

(a) an exclusive, royalty-bearing license under Licensed Patent Rights and Improvements thereof, including the right to sublicense, to research, develop, make, have made, import, have imported, use, have used, sell, have sold, offer for sale, manufacture, distribute have offered for sale, and otherwise fully exploit Licensed Products in the Field throughout the world;

(b) a nonexclusive, royalty-bearing worldwide license to the Technology, including the right to sublicense, to make, have made, import, have imported, use, have used, sell, have sold, offer for sale, have offered for sale, manufacture, distribute and otherwise fully exploit Licensed Products in the Field throughout the world.

**2.2** These licenses are subject to the reservation of Caltech's right to make, have made, and use Licensed Products for noncommercial educational and research purposes, but not for sale or other distribution to third parties. These licenses are not transferable by Licensee except as provided in Paragraph 15.4, but Licensee shall have the right to grant nonexclusive or exclusive sublicenses hereunder, provided that:

(a) Licensee shall include all its sublicensing income in Licensee's reports to Caltech, as provided in Paragraph 8.2, and Licensee shall pay royalties thereon to Caltech pursuant to Paragraph 3.1; and

(b) Licensee shall furnish Caltech within [\*\*] days of the execution thereof, a true and complete copy of each sublicense and any changes or additions thereto.

**2.3** The license grants shall continue for the term of this Agreement as set forth in Article 11; provided, however, that if this Agreement expires pursuant to the first sentence of Paragraph 11.1, Licensee shall retain a nonexclusive, perpetual, royalty-free, worldwide license, with the right to sublicense, under the Caltech Technology, to research, develop, make, use, sell, offer for sale and import Licensed Products.

## **ARTICLE 3 ROYALTIES**

**3.1 Royalties on Sublicenses**. Licensee shall pay Caltech [\*\*] percent ([\*\*]%) of the royalties or other revenues (which include without limitation royalty payments for technical

assistance and the like) Licensee receives from Sublicensees other than Related Companies for the sale of Licensed Products or the conduct of services which are Licensed Products (as defined herein) in the Field for products other than therapeutics. Such royalties or other revenues specifically shall not include payments made by a Sublicensee (i) in consideration of equity or debt securities of Licensee; (ii) to support research or development activities to be undertaken by Licensee; (iii) upon the achievement by Licensee or Sublicensee of specified milestones or benchmarks relating to the development of Licensed Products; (iv) in connection with pilot studies; (v) with respect to performance based milestones; (vi) in consideration for the license or sublicense of any intellectual property other than Caltech Technology; (vii) with respect to products other than Licensed Products, or (viii) as reimbursement for patent or other expenses.

**3.2 Royalties for Licensed Patent Rights.** In any country where the sale or use of Licensed Products is covered by a patent or patent application within the Licensed Patent Rights, if Licensed Products are sold by or for Licensee or a Related Company in the Field for products other than therapeutics in such country, Licensee shall pay Caltech [\*\*] percent ([\*\*]%) of Net Revenues from the sale of Licensed Products or for the conduct of services which are Licensed Products.

**3.3 Royalties for Technology.** In any country where the sale or use of Licensed Products is not covered by a patent or patent application within the Licensed Patent Rights but the use or sale of such Licensed Product utilizes the Technology, Licensed Products are sold by or for Licensee or a Related Company in the Field for products other than therapeutics or used to provide services to third parties, Licensee shall pay Caltech [\*\*] percent ([\*\*]%) of Net Revenues from the sale of Licensed Products or for the conduct of such services for a period of seven (7) years from the first commercial sale of a Licensed Product in such country.

**3.4 Royalties for Therapeutic Products.** No royalties shall be due for sale of Licensed Products for use in drug delivery or therapeutics.

**3.5** Licensee shall be obligated to make payments to Caltech on the sale of a given Licensed Product in a given country only pursuant to either (a) Paragraph 3.1, or (b) Paragraph 3.2 or 3.3. In the event that either (a) Paragraphs 3.1 and 3.2 or (b) 3.1 and 3.3 could apply to the sale of a given Licensed Product in a given country, Licensee shall be obligated to pay only the lesser of the amounts that would be due to Caltech pursuant to this Section 3.5.

**3.6** In the event that Licensed Products are sold in combination with one or more other products or services which are not Licensed Products, Net Revenues for such combination products will be calculated on a country-by-country basis by multiplying actual net sales of such combination products by the fraction  $A/(A+B)$  where A is the average invoice price during the period of the Licensed Product when sold separately, and B is the average invoice price of any other product(s) or services in the combination when sold separately by Licensee or a Related Company. If the products or services in the combination that are not Licensed Products are not sold separately by Licensee or a Related Company, Net Revenues shall be calculated by multiplying actual net sales of such combination products by the fraction  $A/C$  where A is the average invoice price of the Licensed Product when sold separately and C is the average invoice price of the combination product. If neither the Licensed Product nor the combination product is sold separately by Licensee or a Related Company, Net Revenues shall be calculated as above



except that A shall be the total manufacturing cost of Licensed Product and C shall be the total manufacturing cost of the combination.

**3.7** If, in any one year period commencing on the second anniversary of the Effective Date or any subsequent anniversary thereof, Licensee does not pay a minimum of ten thousand dollars (\$10,000.00) in royalties under Paragraphs 3.1, 3.2 or 3.3, or pay an additional royalty equal to the difference between ten thousand dollars (\$10,000.00) and any lower amount paid under Paragraphs 3.1, 3.2 or 3.3, Licensor shall have the right to terminate this Agreement, provided, however, that Licensee may, at its election, pay to Licensor from any other revenues the ten thousand dollar (\$10,000.00) minimum annual royalty and in such event Licensor may not terminate this Agreement.

**3.8** If Licensee or a Related Company is required to make any payment (including, but not limited to, royalties or other license fees) to one or more third parties to obtain a license or similar right in the absence of which it could not legally make, import, use, sell, or offer for sale Licensed Products in any country, and Licensee provides Caltech with reasonably satisfactory evidence of such third-party payments, such third-party payments shall be fully creditable against royalties owed to Caltech hereunder, provided that in no one year shall such expenses be credited against more than [\*\*] percent ([\*\*]%) of royalty payments to Caltech. Any greater amount of such expenses may be carried over and credited against royalties owed in future years.

**3.9** For the purpose of determining royalties payable under this Agreement, any royalties or other revenues Licensee receives from Sublicensees in currencies other than U.S. dollars and any Net Revenues denominated in currencies other than U.S. dollars shall be converted into U.S. dollars according to Licensee's reasonable standard internal conversion procedures, including Licensee's standard internal rates and conversion schedule.

**3.10** Any sublicenses granted by Licensee, including, without limitation, any nonexclusive sublicenses, shall remain in effect and be assigned to Caltech in the event this license terminates pursuant to Article 11; provided, the financial obligations of each Sublicensee to Caltech shall be limited to the amounts Licensee shall be obligated to pay to Caltech for the activities of such Sublicensee pursuant to this Agreement. In such event and subject to the preceding sentence, Caltech shall assume all the rights and obligations of Licensee.

**3.11** No more than one royalty payment shall be due with respect to a sale of a particular Licensed Product. No multiple royalties shall be payable because any Licensed Product, or its manufacture, sale or use is covered by more than one Valid Claim in a given country. No royalty shall be payable under Paragraphs 3.2 or 3.3 above with respect to sales of Licensed Products among Licensee and its Sublicensees, nor shall a royalty be payable under this Article 3 with respect to Licensed Products distributed for use in research and/or development, in clinical trials or as promotional samples or otherwise distributed without charge to third parties.

**3.12** Royalties due under this Article 3 shall be payable on a country-by-country and Licensed Product-by-Licensed Product basis until the expiration of the last-to-expire issued Valid Claim covering such Licensed Product in such country, or if no such patent has previously

issued in a country and the Technology is used, until the seventh anniversary of the first commercial sale of Licensed Product in such country.

#### **ARTICLE 4 LICENSEE EQUITY INTEREST**

**4.1** Licensee agrees to issue to Caltech, in consideration of Licensee's receipt of the intangible property rights granted under this Agreement, an equity interest in Licensee equal to [\*\*] percent ([\*\*]%) of the total equity interest issued upon the initial organization of Licensee, for a total number of shares to be issued to Caltech equal to [\*\*] as provided in, and subject to the terms and conditions of, the Stock Purchase Agreement attached hereto as Exhibit B.

**4.2** Caltech agrees that, in the event of any underwritten or public offering of securities of Licensee or a Related Company, Caltech shall comply with and agree to any reasonable restriction on the transfer of its equity interest, or any part thereof, imposed by an underwriter, and shall perform all acts and sign all necessary documents required with respect thereto. The provisions of this Paragraph 4.2 shall survive termination of this Agreement.

#### **ARTICLE 5 DUE DILIGENCE**

**5.1** Licensee shall have discretion over the commercialization of Licensed Products. However, Licensee agrees to use commercially reasonable efforts to introduce commercial Licensed Product(s) in the United States as soon as practical, consistent with sound and reasonable business practices and judgments. Licensee shall be deemed to have satisfied its obligations under this Paragraph if Licensee has an ongoing and active research program or marketing program, as appropriate, directed toward production and use of one or more Licensed Products. Any efforts of Licensee's Sublicensees shall be considered efforts of Licensee for the sole purpose of determining Licensee's compliance with its obligation under this Paragraph.

**5.2** After the first year from the Effective Date, Caltech shall have the right, no more often than [\*\*], to require Licensee to report to Caltech in writing on its progress in introducing commercial Licensed Product(s) in the United States.

**5.3** If Licensee is not fulfilling its obligations under Paragraph 5.1 with respect to the Field of therapeutics and Caltech so notifies Licensee in writing, Caltech and Licensee shall negotiate in good faith any additional efforts to be taken by Licensee. If the parties do not reach agreement within [\*\*] days, the parties shall submit the issue to arbitration as provided in Article 13 to determine whether any additional efforts shall be required of Licensee. If subsequent to the conclusion of such arbitration proceedings Licensee then fails to make any required efforts, and does not remedy that failure within [\*\*] days after further written notice to Licensee, Caltech may convert the license granted in Paragraph 2.1 to a nonexclusive license in the Field of therapeutics, and the royalties payable under this Agreement shall be reduced by [\*\*] percent ([\*\*]%) for Licensed Products in the Field of therapeutics sold under such a nonexclusive license.

**ARTICLE 6**  
**INFRINGEMENT BY THIRD PARTY**

**6.1** Caltech shall at its expense, have the first right but not the obligation to protect the Licensed Patent Rights from infringement and prosecute infringers when, in its sole judgment, such action may be reasonably necessary, proper and justified. Notwithstanding the foregoing, Licensee shall have the right to sublicense the Licensed Patent Rights or Technology to any alleged infringer pursuant to Paragraph 2.1.

**6.2** If Licensee shall have supplied Caltech with evidence of infringement of Licensed Patent Rights or patents claiming an Improvement by a third party, Licensee may by notice request Caltech to take steps to enforce the Licensed Patent Rights. If Licensee does so, and Caltech does not, within [\*\*] months of the receipt of such notice, either (i) cause the infringement to terminate or (ii) initiate a legal action against the infringer. Licensee may, upon notice to Caltech, initiate an action against the infringer at Licensee's expense, either in Licensee's name or in Caltech's name if so required by law. Licensee shall have sole control of the action.

**6.3** If a declaratory judgment action alleging invalidity, unenforceability or noninfringement of any of the Licensed Patent Rights or patents claiming an Improvement is brought against Licensee and/or Caltech, Licensee may elect to have sole control of the action, and if Licensee so elects it shall bear all the costs of the action.

**6.4** In the event one party shall institute or carry on a legal action pursuant to Paragraphs 6.2 or 6.3, the other party shall fully cooperate with and supply all assistance reasonably requested by the party instituting or carrying on such action, including by using commercially reasonable efforts to have its employees testify when requested and to make available relevant records, papers, information, samples, specimens, and the like. A party controlling an action pursuant to Paragraphs 6.2 or 6.3 shall bear the reasonable expenses incurred by said other party in providing such assistance and cooperation as is requested pursuant to this Paragraph. A party instituting or carrying on such an action shall keep the other party informed of the progress of such action, and said other party shall be entitled to be represented by counsel in connection with such action at its own expense. To the extent not reimbursed by Caltech, Licensee's reasonable and customary expenses for such action (including attorneys' fees and expert fees) shall be fully creditable against royalties owed to Caltech hereunder, provided that in no one year shall such expenses to be credited against more than [\*\*] percent ([\*\*]%) of royalty payments to Caltech. Any remaining expenses may be carried over and credited against royalties owed in future years.

**6.5** The party controlling any action referred to in this Article 6 shall have the right to settle any claims, but only upon terms and conditions that are reasonably acceptable to the other party hereto. Should either party elect to abandon such an action other than pursuant to a settlement with the alleged infringer that is reasonably acceptable to the other party, the party controlling the action shall give timely notice to the other party who, if it so desires, may continue the action; provided, however, that the sharing of expenses and any recovery in such suit shall be as agreed upon between the parties.

**6.6** Any amounts paid to a party by third parties as the result of such an action (such as in satisfaction of a judgment or pursuant to a settlement) shall first be applied to reimbursement of the unreimbursed expenses (including attorneys' fees and expert fees) incurred by each party and then to the payment to Caltech of any royalties against which were credited expenses of the action in accordance with Paragraph 6.4. Any remainder shall be divided between the parties as follows:

(a) To the extent the amount recovered reflects lost profits, Licensee shall retain the remainder, less the amount of any royalties that would have been due Caltech on sales of Licensed Product lost by Licensee as a result of the infringement had Licensee made such sales, provided that Licensee shall in any event retain at least [\*\*] percent ([\*\*]%) of the remainder; and (ii) Caltech shall receive an amount equal to the royalties it would have received if such sales had been made by Licensee, provided such amount shall in no event exceed [\*\*]percent ([\*\*]%) of the remainder; or

(b) To the extent the amount recovered does not reflect lost profits, [\*\*] percent ([\*\*]%) shall be paid to the party initiating the action and [\*\*] percent ([\*\*]%) to the other party.

**6.7** If an infringement or infringements by third parties of Licensed Patent Rights is on a scale that significantly affects sales of Licensed Products, and neither Caltech nor Licensee elect to bring an infringement suit against the infringers, the royalties hereunder payable by Licensee pursuant to Article 3 shall be reduced by [\*\*] percent ([\*\*]%) of the sums otherwise payable if Licensee presents information to Caltech that such infringer has refused to enter into a royalty-bearing, sublicensing agreement with Licensee on terms reasonably acceptable to Licensee.

**6.8** The allowed reductions set forth in Paragraph 6.7 and Paragraph 3.7 shall not exceed, in the aggregate, [\*\*] percent ([\*\*]%) of the sums otherwise payable during any year.

#### **ARTICLE 7 BENEFITS OF LITIGATION, EXPIRATION OR ABANDONMENT**

**7.1 General.** In a case where one or more patents or particular claims thereof within the Licensed Patent Rights expire, or are abandoned, or are declared invalid or unenforceable or otherwise construed by a court of last resort or by a lower court from whose decree no appeal is taken, or certiorari is not granted within the period allowed therefor, then the effect thereof hereunder shall be:

(a) that such patents or particular claims shall, as of the date of expiration or abandonment or final decision as the case may be, cease to be included within the Licensed Patent Rights for the purpose of this Agreement; and

(b) that such construction so placed upon the Licensed Patent Rights by the court shall be followed from and after the date of entry of the decision, and royalties shall thereafter be payable by Licensee only in accordance with such construction; and

(c) In the event that Licensee challenges the validity of Licensed Patent Rights, Licensee may not cease paying royalties as of the date validity of the claims in issue are challenged, but rather may cease paying royalties as to those claims only after a final adjudication of invalidity of those claims.

**7.2 Adjustment.** In the event that any of the contingencies provided for in Paragraph 7.1 occurs, Caltech agrees to renegotiate in good faith with Licensee a reasonable royalty rate under the remaining Licensed Patent Rights which are unexpired and in effect and under which Licensee desires to retain a License.

## **ARTICLE 8 RECORDS, REPORTS AND PAYMENTS**

**8.1** Licensee shall keep records and books of account in respect of all Licensed Products made and sold by Licensee or Related Companies under this Agreement and of royalties or other revenues Licensee receives from Sublicensees other than Related Companies for the sale of Licensed Products. Caltech shall have the right, during business hours, no more often than [\*\*], and upon reasonable notice to Licensee to examine, or to have its designated auditors examine, such records and books. Licensee shall keep the same for at least [\*\*] years after it pays Caltech the royalties due for such Licensed Products and require Related Companies to do the same. Caltech shall not disclose to any third party any confidential information learned through an examination of such records and books, nor shall Caltech use any such information for any purpose other than determining and enforcing its rights under this Agreement.

**8.2** Following the first commercial sale of a Licensed Product, on or before the last day of each February, May, August and November for so long as royalties are payable under this Agreement, Licensee shall render to Caltech a report in writing, setting forth Net Revenues and the number of units of Licensed Products sold during the preceding calendar quarter by Licensee and Related Companies, and the royalties or other revenues Licensee received from Sublicensees other than Related Companies during the preceding calendar quarter for the sale of Licensed Products. Each such report shall also set forth an explanation of the calculation of the royalties payable hereunder and be accompanied by payment of the royalties shown by said report to be due Caltech. Notwithstanding the foregoing, if (i) Caltech materially breaches this Agreement, (ii) Licensee gives Caltech written notice of the breach, and (iii) Caltech has not cured the breach by the time a payment is due under this Paragraph, then Licensee may make the required payment into an interest bearing escrow account to be released when the breach is cured, less any damages that may be payable to Licensee by virtue of Caltech's breach.

## **ARTICLE 9 CONFIDENTIALITY**

**9.1** Dr. Mark E. Davis shall provide to Licensee copies of any proposed presentation or publication or abstract which is an Improvement to Caltech Technology at the time of submission to a journal, editor, or third party. Licensee can request Caltech to file, at Caltech's expense, a provisional patent application enabling the technology disclosed in the proposed publication at the United States Patent and Trademark Office, and shall provide Licensee with evidence of the filing of such provisional patent application. Licensee may request reasonable

changes and/or deletions be made in any proposed publication. Dr. Davis will consider such changes but retains the sole right to determine whether such changes or deletions will be made; but Dr. Davis agrees that he will honor Licensee's reasonable requests to remove any confidential information of Licensee included in any such public disclosure. If Licensee believes that the subject matter to be disclosed or published warrants patent protection, it will identify the subject matter requiring protection and notify Caltech. Caltech agrees to use commercially reasonable efforts to cooperate in the filing of a U.S. patent application as provided in Paragraph 10.4 thereon prior to any date that would result in preventing the obtaining of valid patent rights throughout the world when Licensee so identifies subject matter requiring patent protection from a review of the planned publication.

**9.2** All reports provided to Caltech pursuant to this Agreement shall be treated as confidential information of Licensee and shall not be disclosed to any third party without the prior written consent of Licensee.

**9.3** Except as expressly provided herein, each party agrees not to disclose any terms of this Agreement to any third party without the consent of the other party; provided, however, that disclosures may be made as required by securities or other applicable laws, or to actual or prospective investors or corporate partners, or to a party's accountants, attorneys, and other professional advisors.

## **ARTICLE 10 PAYMENT OF PATENT COSTS**

**10.1** Starting two years from the Effective Date, Licensee shall, in connection with the preparation, filing, and prosecution, issuance and maintenance of the Licensed Patent Rights both in the United States and foreign jurisdictions:

**(a)** pay all reasonable attorney fees for services performed to obtain the issuance of the Licensed Patent Rights, and all patent and government fees for services performed after the issuance of Licensed Patent Rights, and

**(b)** pay all Patent and Trademark Office maintenance fees.

**10.2** **[\*\*]** percent (**[\*\*]**%) of the amounts expended by Licensee in connection with U.S. patent costs shall be creditable against earned royalties due Caltech; **[\*\*]** percent (**[\*\*]**%) of patent expenses paid by Licensee in conjunction with foreign patent costs shall be creditable against earned royalties due Caltech in the respective territory covered by the patent or patents that are foreign filed.

**10.3** Starting two (2) years from the Effective Date, Licensee shall reimburse Caltech for all fees and expenses paid by Caltech related to the preparation, filing and prosecution, issuance and maintenance of the Licensed Patent Rights that were incurred from the Effective Date to the second anniversary date thereof. Following receipt by Licensee from Caltech of (i) an invoice covering such fees (including copies of invoices for legal fees describing the legal services performed in reasonable detail) and (ii) reasonably satisfactory evidence that such fees were paid, payment shall be made by Licensee to Caltech in six (6) equal quarterly installments due within **[\*\*]** days after the end of each respective calendar quarter, beginning with the

calendar quarter following the quarter in which such invoice was received by Licensee. To the extent that Licensee terminates this Agreement pursuant to Paragraph 11.2 with respect to any patent application or patent, Licensee shall have no further liability under Paragraph 10.1 for fees relating to applications or patents affected by the termination.

**10.4** Caltech shall apply for, prosecute and maintain during the term of this Agreement the Licensed patent Rights. The application filings, prosecution, maintenance and payment of all fees and expenses, including legal fees, relating to such Licensed Patent Rights shall be the responsibility of Caltech, provided that Licensee shall reimburse Caltech for all reasonable fees and expenses, including reasonable legal fees, incurred by Caltech in such application filings, prosecution and maintenance. Patent attorneys chosen by Caltech and acceptable to Licensee shall handle all patent filings and prosecutions, on behalf of Caltech, provided, however, Licensee shall be entitled to review and comment upon and approve all actions undertaken in the prosecution of all patents and applications. In the event Caltech declines to apply for, prosecute or maintain any Licensed Patent Rights as requested by Licensee, Licensee shall have the right to pursue the same in Caltech's name and at Licensee's expense. If Caltech decides not to apply for, prosecute or maintain any Licensed Patent Rights, Caltech shall give sufficient and timely notice to Licensee so as to permit Licensee to apply for, prosecute and maintain such Licensed Patent Rights.

## **ARTICLE 11 TERMINATION**

**11.1** The term of this Agreement shall commence upon the Effective Date and expire upon the date of expiration of all royalty obligations in all countries as provided in Paragraph 3.11. Caltech shall have the right to terminate this Agreement prior to the date it would otherwise expire pursuant to this Paragraph 11.1 if Licensee fails to make any payment due hereunder and Licensee continues to fail to make the payment, either to Caltech directly or by placing any disputed amount into an interest bearing escrow account to be released when the dispute is resolved, for a period of [\*\*] days after receiving notice from Caltech specifying Licensee's failure. Upon any such termination, (i) Licensee and Related Companies shall have [\*\*] to complete the manufacture of any Licensed Products that then are work in progress and to sell their inventory of Licensed Products, provided Licensee pays the applicable royalties in accordance with Paragraph 8.2, and (ii) Caltech shall accept an assignment by Licensee of any sublicenses granted by Licensee to entities other than Related Companies, and any sublicense so assigned shall remain in full force and effect.

**11.2** If either party materially breaches this Agreement, the other party may elect to give the breaching party written notice describing the alleged breach. If the breaching party has not cured such breach within [\*\*] days after receipt of such notice, the notifying party will be entitled, in addition to any other rights it may have under this Agreement, to terminate this Agreement effective immediately; provided, however, that if either party receives notification from the other of a material breach and if the party alleged to be in default notifies the other party in writing within [\*\*] days of receipt of such default notice that it disputes the asserted default, the matter will be submitted to arbitration as provided in Article 13 of this Agreement. In such event, the nonbreaching party shall not have the right to terminate this Agreement until it has been determined in such arbitration proceeding that the other party materially breached this

Agreement, and the breaching party fails to cure such breach within [\*\*] days after the conclusion of such arbitration proceeding.

**11.3** Licensee shall have the right to terminate this Agreement either in its entirety or as to any jurisdiction or any part of the Licensed Patent Rights or Licensed Patents upon sixty (60) days written notice. If Licensee does so, it shall submit all required reports and make all required payments in accordance with Paragraph 8.2

**11.4** No termination of this Agreement shall relieve Licensee of the liability for payment of any royalty due for Licensed Products made prior to the effective date of such termination.

**11.5** Termination of this Agreement for any reason shall not release any party hereto from any liability which, at the time of such termination, has already accrued to the other party or which is attributable to a period prior to such termination, nor preclude either party from pursuing any rights and remedies it may have hereunder or at law or in equity which accrued or are based upon any event occurring prior to such termination.

**11.6** Paragraphs 3.10, 3.12, 4.2, 8.2 (if Paragraph 11.2 applies), 11.2, 11.4, 11.5 and Articles 8, 9, 13, 14 and 15 of this Agreement shall survive termination of this Agreement for any reason.

**ARTICLE 12**  
**WARRANTIES AND NEGATION OF**  
**WARRANTIES, IMPLIED LICENSES AND AGENCY**

**12.1** Caltech represents and warrants that it owns all right, title and interest in and to the Licensed Patent Rights, subject to this license.

**12.2** Caltech represents and warrants that it has not granted any third party right or interest in any of the Licensed Patent Rights or Improvements that is inconsistent with the rights granted to Licensee herein and will not grant any third party such a right during the term of this Agreement.

**12.3** Caltech represents and warrants: (i) the execution, delivery, and performance of this Agreement have been duly authorized by all necessary corporate action on the part of Caltech; (ii) it is the sole and exclusive owner of all right, title, and interest in the Caltech Technology; (iii) it has the right to grant the rights and licenses granted herein, and the Caltech Technology is free and clear of any lien, encumbrance, security interest, or restriction on license; and (iv) there are no threatened or pending actions, suits, investigations, claims, or proceedings in any way relating to the Caltech Technology

**12.4** Nothing in this Agreement shall be construed as:

- (a) a representation or warranty of Caltech as to the validity or scope of Licensed Patent Rights or any claim thereof; or



(b) a representation or warranty that any Licensed Product is or will be free from infringement of rights of third parties (except to the extent that Paragraph 12.3 constitutes a representation and warranty that Licensed Products will not infringe rights of third parties in the Licensed Patent Rights); or

(c) an obligation to bring or prosecute actions or suits against third parties for infringement; or

(d) conferring by implication, estoppel or otherwise, any license or rights under any patents of Caltech other than Licensed Patent Rights, regardless of whether such other patents are dominant or subordinate to Licensed Patent Rights.

**12.5** CALTECH MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ASSUMES NO RESPONSIBILITIES WHATEVER WITH RESPECT TO THE USE, SALE, OR OTHER DISPOSITION BY LICENSEE OF LICENSED PRODUCT(S).

**12.6** Caltech and Licensee are independent parties in this Agreement. Accordingly, there is no agency relationship between Caltech and Licensee under this Agreement with respect to any products made or sold, or any methods used, by Licensee under this Agreement.

### **ARTICLE 13 ARBITRATION**

**13.1** Any controversy or claim arising out of or related to the parties' obligations under this Agreement, or the breach thereof, shall be settled by arbitration conducted in the State of California and, except as otherwise provided in this Paragraph 13.1, shall be conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association. Discovery shall be permitted as set forth in the Federal Rules of Civil Procedure with respect to the performance by the Parties of their obligations under this Agreement and such other matters as the arbitrators may determine (it being the intent of the Parties that full discovery occur with respect to salient facts). Judgment upon an award rendered by the Arbitrator may be entered in any court having jurisdiction thereof.

### **ARTICLE 14 PRODUCT LIABILITY**

**14.1** Licensee agrees that Caltech shall have no liability to Licensee or to any purchasers or users of Licensed Products made or sold by Licensee for any claims, demands, losses, costs, or damages suffered by Licensee, or purchasers or users of such Licensed Products, or any other party, which may result from personal injury, death, or property damage related to the manufacture, use, or sale of such Licensed Products ("Claims"). Licensee agrees to defend, indemnify, and hold harmless Caltech, its trustees, officers, agents, and employees from any such Claims, provided that (i) Licensee is notified promptly of any Claims, (ii) Licensee has the sole right to control and defend or settle any litigation within the scope of this indemnity, and (iii) all indemnified parties cooperate to the extent necessary in the defense of any Claims.

**14.2** At such time as Licensee begins to sell or distribute Licensed Products commercially (other than for the purpose of preclinical and clinical trials and obtaining regulatory approvals), Licensee shall at its sole expense, procure and maintain policies of comprehensive general liability insurance in amounts not less than \$[\*\*] per incident and \$[\*\*] in annual aggregate and naming those indemnified under Paragraph 14.1 as additional insureds. Such comprehensive general liability insurance shall provide (i) product liability coverage and (ii) broad form contractual liability coverage for Licensee's indemnification under Paragraph 14.1. In the event the aforesaid product liability coverage does not provide for occurrence liability, Licensee shall maintain such comprehensive general liability insurance for a reasonable period of not less than [\*\*] years after it has ceased commercial distribution or use of any Licensed Product.

**14.3** Licensee shall provide Caltech with written evidence of such insurance upon request of Caltech. Licensee shall provide Caltech with notice at least [\*\*] days prior to any cancellation, non-renewal or material change in such insurance, to the extent Licensee receives advance notice of such matters from its insurer. If Licensee does not obtain replacement insurance providing comparable coverage within [\*\*] days following the date of such cancellation, non-renewal or material change, and is unable after reasonable efforts to obtain the required insurance at commercially reasonable rates, Caltech shall cooperate with Licensee to either grant a waiver of Licensee's obligations under this Article or assist Licensee in identifying a carrier to provide such insurance or in developing a program for self-insurance or other alternative measures. This Article 14 shall survive the expiration or termination of this Agreement.

## **ARTICLE 15 MISCELLANEOUS**

**15.1** Licensee agrees that it shall not use the name of Caltech, or California Institute of Technology, in any advertising or publicity material, or make any form of representation or statement which would constitute an express or implied endorsement by Caltech of any Licensed Product, and that it shall not authorize others to do so, without first having obtained written approval from Caltech, except as may be required by governmental law, rule or regulation.

**15.2** Licensee agrees to mark the appropriate U.S. patent number or numbers on all Licensed Products made or sold in the United States in accordance with all applicable governmental laws, rules and regulations, and to require its Sublicensees to do the same.

**15.3** This Agreement sets forth the complete agreement of the parties concerning the subject matter hereof. No claimed oral agreement in respect thereto shall be considered as any part hereof. No waiver of or change in any of the terms hereof subsequent to the execution hereof claimed to have been made by any representative of either party shall have any force or effect unless in writing, signed by duly authorized representatives of the parties.

**15.4** This Agreement shall be binding upon and inure to the benefit of any successor or assignee of Caltech. This Agreement is not assignable by Licensee without the prior written consent of Caltech, except that Licensee may assign this Agreement without the prior written consent of Caltech, to any Related Company, or any successor of, or purchaser of a substantial

part of the assets of, the business to which this Agreement pertains. Any permitted assignee shall succeed to all of the rights and obligations of Licensee under this Agreement.

**15.5** This Agreement is subject in all respects to the laws and regulations of the United States of American, including the Export Administration Act of 1979, as amended, and any regulations thereunder.

**15.6** This Agreement shall be deemed to have been entered into in California and shall be construed and enforced in accordance with California law.

**15.7** Any notice or communication required or permitted to be given or made under this Agreement shall be addressed as follows:

Caltech: Office of Technology Transfer  
California Institute of Technology  
1200 East California Boulevard (MC 210-85)  
Pasadena, CA 91125  
Fax No.: (626) 356-2486

Licensee: Insert Therapeutics, Inc.,  
657 South Grand Ave.  
Pasadena, CA 91105  
Attn: President  
Fax No: (626) 403-7498

Either party may notify the other in writing of a change of address or fax number, in which event any subsequent communication relative to this Agreement shall be sent to the last said notified address or number, provided, however, that the parties shall deliver all material notices under this Agreement by registered mail or overnight delivery service. All notices and communications relating to this Agreement shall be deemed to have been given when received.

**15.8** Nothing in this Agreement will impair Licensee's right to independently acquire, license, develop for itself, or have others develop for it, intellectual property and technology performing similar functions as the Caltech Technology or to market and distribute products other than Licensed Products based on such other intellectual property and technology.

**15.9** NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES ARISING OUT OF THIS AGREEMENT, HOWEVER CAUSED, UNDER ANY THEORY OF LIABILITY.

**15.10** Neither party shall lose any rights hereunder or be liable to the other party for damages or losses (except for payment obligations) on account of failure of performance by the defaulting party if the failure is occasioned by war, strike, fire, Act of God, earthquake, flood, lockout, embargo, governmental acts or orders or restrictions, failure of suppliers, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence or intentional conduct or misconduct of the nonperforming party, and such party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a party be required to settle any labor dispute or disturbance.

**15.11** In the event that any provisions of this Agreement are determined to be invalid or unenforceable by a court of competent jurisdiction, the remainder of the Agreement shall remain in full force and effect without said provision. The parties shall in good faith negotiate a substitute clause for any provision declared invalid or unenforceable, which shall most nearly approximate the intent of the parties in entering this Agreement.

**15.12** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

**15.13** The headings of the several Paragraphs are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

**15.14** Whenever provision is made in this Agreement for either party to secure the consent or approval of the other, that consent or approval shall not unreasonably be withheld or delayed, and whenever in this Agreement provisions are made for one party to object to or disapprove a matter, such objection or disapproval shall not unreasonably be exercised.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed:

**CALIFORNIA INSTITUTE OF TECHNOLOGY (Caltech)**

Date: May 22, 2000

By:  /s/ Laurence Gilbert  
Name: Laurence Gilbert  
Title: Director, Office of Technology Transfer

**INSERT THERAPEUTICS, INC.**

Date: May 22, 2000

By:  /s/ Janet L. Braun  
Name: Janet L. Braun  
Title: Vice President and Secretary

**Acknowledged and, solely with respect to the obligations set forth in Section 9.1, agreed:**

**DR. MARK E. DAVIS**

Date: 5-22-00

/s/ Mark E. Davis  
Dr. Mark E. Davis

**Exhibit A**  
**Licensed Patent Rights**

Tech, Disclosure #/ Caltech ID No.	Appln Serial #/ Issued Patent #	Date	Title
[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]

**Exhibit B**

**Common Stock Purchase Agreement**

This Common Stock Purchase Agreement (the "Agreement") is made as of the \_\_\_\_\_ day of March, 2000, by and between Insert Therapeutics, Inc., a Delaware corporation (the "Company"), and California Institute of Technology ("Caltech") and those certain individuals whose names are set forth on Exhibit A attached hereto (hereinafter collectively referred to as the "Purchasers" and individually as a "Purchaser").

Whereas, the Company and Caltech are, concurrent with the execution hereof, entering into that certain License Agreement by and between the Company and Caltech (the "License Agreement"); and

Whereas, in consideration of the rights granted by Caltech to the Company in the License Agreement and the mutual covenants herein contained, the Company desires to sell and issue shares of the Company's Common Stock to the Purchasers.

1. Purchase and Sale of Stock. Purchasers hereby agree to purchase from Company, and the Company hereby agrees to sell to Purchasers, an aggregate of \_\_\_\_\_ shares of the Common Stock of the Company (the "Stock") at \$.001 per share, with the number of shares sold to each Purchaser as set forth in Exhibit A, for an aggregate purchase price of \_\_\_\_\_ (\$\_\_\_\_\_). Payment of the purchase price by Caltech shall be deemed paid in consideration of the execution and delivery to the Company of the License Agreement. Each Purchaser, other than Caltech shall pay the purchase price for shares issued to him or her.

2. Limitations on Transfer. No Purchaser shall assign, hypothecate, donate, enconber or otherwise dispose of any interest in the Stock except in compliance with the provisions herein and applicable securities laws. Furthermore, the Stock shall be subject to the Stockholders Agreement dated \_\_\_\_\_. The Company shall not be required (a) to transfer on its books any shares of Stock of the Company which shall have been transferred in violation of any of the provisions set forth in this Agreement or (b) to treat as owner of such shares or to accord the right to vote as such owner or to pay dividends to any transferee to whom such shares shall have been so transferred.

3. Restrictive Legends. All certificates representing the Stock shall have endorsed thereon legends in substantially the following forms (in addition to any other legend which may be required by other agreements between the parties hereto):

a. "THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER SAID ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED."

b. "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO THE PROVISIONS OF THE STOCKHOLDERS AGREEMENT DATED \_\_\_\_\_."

c. Any legend required by appropriate "blue sky" laws.

4. Investment Representations. In connection with the purchase of the Stock, each Purchaser represents to the Company the following:

a. Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Stock. Purchaser is purchasing the Stock for investment for Purchaser's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Act").

b. Purchaser understands that the Stock has not been registered under the Act by reason of a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein.

c. Purchaser further acknowledges and understands that the Stock must be held indefinitely unless the Stock is subsequently registered under the Act or an exemption from such registration is available. Purchaser further acknowledges and understands that the Company is under no obligation to register the Stock. Purchaser understands that the certificate evidencing the Stock will be imprinted with a legend which prohibits the transfer of the Stock unless the Stock is registered or such registration is not required in the opinion of counsel satisfactory to the Company.

d. Purchaser is familiar with the provisions of Rule 144 under the Act, as in effect from time to time, which, in substance, permit limited public resale of "restricted issuer," in a non-public offering subject to the satisfaction of certain conditions. The Stock may be resold by Purchaser in certain limited circumstances subject to the provisions of Rule 144, which requires, among other things: (i) the availability of certain public information about the Company and (ii) the resale occurring following the required holding period under Rule 144 after the Purchaser has purchased, and made full payment of (within the meaning of Rule 144), the securities to be sold.

e. Purchaser further understands that at the time Purchaser wishes to sell the Stock there may be no public market upon which to make such a sale, and that, even if such a public market then exists, the Company may not be satisfying the current public current information requirements of Rule 144, and that, in such event, Purchaser would be precluded from selling the Stock under Rule 144 even if the minimum holding period requirement had been satisfied.

f. Purchaser further warrants and represents that Purchaser has either (i) a preexisting business relationship with the Company or any of its officers, directors or controlling persons, or (ii) the capacity to protect its own interests in connection with the purchase of the Stock by virtue of the business or financial expertise of itself or of professional advisors to



Purchaser who are unaffiliated with and who are not compensated by the Company or any of its affiliates, directly or indirectly.

5. Market Stand-Off Agreement. Purchaser shall not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale of any Common Stock of the Company held by Purchaser, including the Stock (the "Restricted Securities"), for a period of time (not to exceed one hundred eighty (180) days) specified by the underwriter(s) following the effective date of a registration statement of the Company filed under the Act. Purchaser agrees to execute and deliver such other agreements as may be reasonably requested by the Company and/or the underwriter(s) which are consistent with the foregoing or which are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to Purchaser's Restricted Securities until the end of such period.

6. Miscellaneous.

a. Notices. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or sent by telegram or fax or upon deposit in the United States Post Office, by registered or certified mail with postage and fees prepaid, addressed to the other party hereto at their address hereinafter shown below such party's signature or on Exhibit A attached hereto or at such other address as such party may designate by ten (10) days' advance written notice to the other party hereto.

b. Successors and Assigns. This Agreement shall inure to the benefit of the successors and assigns of the Company and, subject to the restrictions on transfer herein set forth, be binding upon Purchaser and Purchaser's successors and assigns.

c. Attorneys' Fees; Specific Performance. Purchaser shall reimburse the Company for all costs incurred by the Company in enforcing the performance of, or protecting its rights under, any part of this Agreement, including reasonable costs of investigation and attorneys' fees.

d. Governing Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of California. The parties agree that any action brought by either party to interpret or enforce any provision of this Agreement shall be brought in, and each party agrees to, and does hereby, submit to the jurisdiction and venue of, the appropriate state or federal court for the district encompassing the Company's principal place of business.

e. Further Execution. The parties agree to take all such further action(s) as may reasonably be necessary to carry out and consummate this Agreement as soon as practicable, and to take whatever steps may be necessary to obtain any governmental approval in connection with or otherwise qualify the issuance of the securities that are the subject of this Agreement.

f. Independent Counsel. Each Purchaser acknowledges that this Agreement has been prepared on behalf of the Company by counsel to the Company and each Purchaser has

been provided with an opportunity to consult with Purchaser's own counsel with respect to this Agreement.

g. Entire Agreement; Amendment. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes and merges all prior agreements or understandings, whether written or oral. This Agreement may not be amended, modified or revoked, in whole or in part, except by an agreement in writing signed by each of the parties hereto.

h. Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of the Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of the Agreement shall be enforceable in accordance with its terms.

i. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

**In Witness Whereof**, the parties hereto have executed this Agreement as of the day and year first above written.

**Insert Therapeutics, Inc.**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: 657 South Grand Avenue  
Pasadena, CA 91105

**California Institute of Technology**

By: \_\_\_\_\_  
Name: Lawrence Gilbert  
Title: Director, Office of Technology Transfer

\_\_\_\_\_  
**Mark E. Davis**

---

**Exhibit C**  
**SCHEDULE OF PURCHASERS**

AMENDMENT  
to  
LICENSE AGREEMENT

This AMENDMENT ("Amendment") effective as of the last date on the signature page hereof, by and between Insert Therapeutics, Inc. ("LICENSEE"), and California Institute of Technology ("CALTECH") amends and supplements that certain License Agreement between LICENSEE and CALTECH dated as of May 22, 2000 (the "Agreement"). LICENSEE and CALTECH are sometimes referred to herein individually as a party and collectively as the parties. Capitalized terms which are not defined in this Amendment shall have the meanings set forth in the Agreement.

WHEREAS, LICENSEE and CALTECH desire to amend the terms of the Agreement as set forth below.

NOW THEREFORE, LICENSEE and CALTECH agree that the terms and conditions of the Agreement shall be amended as follows:

Section 1.7 of the Agreement is amended by replacing the last sentence in Section 1.7 with the following sentence:

"Notwithstanding anything else contained herein, Technology shall not include Improvements."

Except as expressly amended and supplemented hereby, all other terms of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed by their duly authorized representatives.

INSERT THERAPEUTICS, INC.

CALIFORNIA INSTITUTE OF TECHNOLOGY

By: /s/ John G. Petrovich

By: /s/ Laurence Gilbert

Name: John G. Petrovich

Name: Laurence Gilbert

Title: COO/CHIEF LEGAL OFF'R

Title: DIR TECH TRANSFER

Date: 12-7-2001

Date: 12/10/2001

SECOND AMENDMENT  
to  
LICENSE AGREEMENT

This SECOND AMENDMENT ("Amendment") effective as of the last date on the signature page hereof, by and between Insert Therapeutics, Inc. ("Licensee"), and California Institute of Technology ("Caltech") amends and supplements that certain License Agreement between Licensee and Caltech dated as of May 22, 2000 (the "Agreement"). Licensee and Caltech are sometimes referred to herein individually as a party and collectively as the parties. Capitalized terms which are not defined in this Amendment shall have the meanings set forth in the Agreement.

WHEREAS, Licensee and Caltech desire to amend the terms of the Agreement as set forth below.

NOW THEREFORE, Licensee and Caltech agree that the terms and conditions of Article 10 of the Agreement shall be amended as follows:

1. In full satisfaction of (i) Licensee's obligation under Section 10 of the Agreement to reimburse Caltech for all fees and expenses paid by CALTECH related to the preparation, filing and prosecution, issuance and maintenance of the Licensed Patent Rights that were incurred through and including October 31, 2002, only a portion of which are payable as of the Effective Date of this Amendment, and (ii) Licensee's obligation pursuant to Section 3.7 of the Agreement to pay CALTECH the first non-refundable ten thousand dollar (\$10,000) annual payment which became due and payable on the second anniversary of the execution of the Agreement, Licensee agrees to issue to Caltech 610,000 fully paid and nonassessable shares of Licensee's Common Stock. From and after November 1, 2002, Licensee will be responsible for the direct payment of all such fees and expenses, as provided by Section 10.1 and all future annual payments to Caltech as provided by Section 3.7.
2. Section 10.2 of the Agreement is hereby amended in its entirety to read as follows: "Licensee shall receive (a) a credit against earned royalties due Caltech hereunder in respect of United States Licensed Patent Rights equal to [\*\*] percent ([\*\*]%) of all fees and expenses relating to the preparation, filing and prosecution, issuance and maintenance of the Licensed Patent Rights in the United States, and (b) a credit against earned royalties due Caltech hereunder in respect of foreign Licensed Patent Rights equal to [\*\*] percent ([\*\*]%) of all fees and expenses relating to the preparation, filing and prosecution, issuance and maintenance of the Licensed Patent Rights that are filed in foreign jurisdictions, in the case of each of (a) and (b) above, whether such fees and expenses were incurred and paid by Caltech or Licensee, and regardless of whether such fees and expenses were incurred and/or paid prior to, on or after the Effective Date."

Except as expressly amended and supplemented hereby, all other terms of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed by their duly authorized representatives.

INSERT THERAPEUTICS, INC.

CALIFORNIA INSTITUTE OF TECHNOLOGY

By: /s/ Leonard Borrmann

Name: Leonard Borrmann

Title: President & CEO

Date: 1/13/03

By: /s/ Laurence Gilbert

Name: Laurence Gilbert

Title: DIR TECH TRANSFER

Date: 1/08/03

THIRD AMENDMENT  
to  
LICENSE AGREEMENT

This THIRD AMENDMENT ("Third Amendment") effective as of the last date on the signature page hereof, by and between Calando Pharmaceuticals, Inc. ("Calando," formerly known as Insert Therapeutics, Inc., herein referred to also as "Licensee") and California Institute of Technology ("Caltech") amends and supplements that certain License Agreement between Licensee and Caltech dated as of May 22, 2000, as amended December 10, 2001 and January 13, 2003 (the "Agreement"). Licensee and Caltech are sometimes referred to herein individually as a "party" and collectively as the "parties". Capitalized terms which are not defined in this Third Amendment shall have the meanings set forth in the Agreement.

WHEREAS, Licensee has entered into certain Unsecured Convertible Promissory Note Agreements, each substantially in the form attached as Exhibit A to this Third Amendment, ("UCPNAs") with certain investors ("Investors") which are associated with a senior payout ("UCPNA Redemption Amount");

WHEREAS, Licensee owes certain monies to certain creditors, shareholders and vendors ("Liabilities" listed in Exhibit B to this Third Amendment);

WHEREAS, Licensee has reached an agreement with Cerulean Pharma Inc., ("Cerulean") to exclusively sublicense the Licensed Patent Rights, Improvements thereof and Technology in certain fields ("Cerulean Transaction") in exchange for earned royalties on commercial net sales of certain products by Cerulean or its affiliates ("Cerulean Royalties") and certain other payments, which financial provisions are substantially described in the materials previously provided to Caltech;

WHEREAS, some Investors have agreed to convert their UCPNAs into a new class of Series A Preferred Stock with the right to receive certain payments prior to and in preference to holders of any other class of stock ("Series A Preferential Amount") as set forth in the restated certificate of incorporation of Calando attached as Exhibit C to this Agreement;

WHEREAS, Caltech is of the position that Licensee owes Caltech certain monies associated with the cost of prosecuting certain Caltech assigned patent applications, including but not limited to the patent families known as CIT-3915, CIT-3915-CIP and their continuation, continuation-in-part, reissue, reexamination applications as well as their foreign counterparts (collectively "Patent Costs");

WHEREAS, while making no admission as to the merits of Caltech's position regarding the Patent Costs, Licensee is willing to donate certain equipment assets to Caltech ("Equipment" listed in Exhibit D to this Third Amendment) in order to fully discharge any obligations it might have associated with Patent Costs arising prior to the effective date of this Third Amendment, and to expedite Caltech's approval of the Cerulean Transaction;

WHEREAS, Caltech has made its approval of the Cerulean Transaction and execution of the Side Letter contingent upon Calando's entry into this Third Amendment and Licensee's donation of Equipment;



NOW THEREFORE, Licensee and Caltech agree as follows:

1. *This Third Amendment shall add Section 3.13 to the Agreement, which shall read as follows:*

**3.13 Cerulean Royalties.** Licensee intends to apply any monies it receives from Cerulean toward satisfying the Liabilities and paying the aggregate UCPNA Redemption Amount and aggregate Series A Preferential Amount (collectively "Licensee Financial Obligations"). Only after Licensee has satisfied all of the Licensee Financial Obligations in full, shall Caltech receive [**\*\***] % of any Cerulean Royalties that Licensee receives. For the sake of clarity, Cerulean Royalties do not include any upfront payments, development, third-party sublicensing or sales milestone payments associated with the Cerulean Transaction.

2. *This Third Amendment shall further add new Article 16:*

## **ARTICLE 16 DONATION AND RELEASE**

**16.1 Donated Equipment.** Licensee hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Caltech, and Caltech hereby assumes from Licensee, all right, title and interest in and to the Equipment listed and described in Exhibit D to the Third Amendment. Caltech acknowledges that Licensee transfers all Equipment in "as is" condition with no warranties expressed or implied.

**16.2 Release.** In consideration for entry into this Third Amendment and assignment of the Equipment, Caltech together with its predecessors, successors, parents, subsidiaries, affiliates, related companies, assigns and any person or entity acting for or on their behalf, including without limitation their past, present and future trustees, principals, representatives, directors, officers, agents, shareholders, employees, attorneys and their respective heirs, executors, administrators, successors and assigns (collectively, the "Caltech Releasers"), for good and valuable consideration, the sufficiency of which is hereby acknowledged, hereby release discharge Licensee, together with its predecessors, successors, parents, subsidiaries, affiliates, related companies, assigns and any person or entity acting for or on their behalf, including without limitation their past, present and future principals, representatives, directors, officers, agents, shareholders, employees, attorneys and their respective heirs, executors, administrators, successors and assigns (collectively, the "Licensee Releasees") from any and all rights, reimbursements, interests, claims, demands, causes of action, indebtedness, damages, consequential damages, liabilities and obligations of every kind and nature, in law or in equity, known and unknown, suspected and unsuspected, fixed or contingent, anywhere in the world, arising out of or relating to events occurring through the effective date of this Third Amendment, including without limitation all claims arising out of or relating to the Agreement, this Third Amendment, the Cerulean Transaction, the Caltech Consent, the assignment of Equipment under Section 16.1, Patent Costs, and any other claims which have been or could have been asserted. Caltech represents and warrants that there has been no assignment or other transfer of any interest in any claims or potential claims against the Licensee Releasees that are covered by the releases contained in this paragraph.

IN WITNESS WHEREOF, the parties have caused this Third Amendment to be executed:

**California Institute of Technology:**

Name: /s/ Fred Farina

Title: \_\_\_\_\_

Date 6/??/09

Fred Farina  
Asst. Vice President  
Office of Technology Transfer  
California Institute of Technology

**Calando Pharmaceuticals, Inc.:**

Name: /s/ (Illegible)

Title: CFO

Date: 6/19/2009

EXHIBIT A  
FORM OF UCPNA

THIS NOTE AND ANY SHARES ACQUIRED UPON CONVERSION OF THIS NOTE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION, AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT FILED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNLESS OTHER EVIDENCE SATISFACTORY TO CALANDO PHARMACEUTICALS, INC. IS PROVIDED CONFIRMING THAT SUCH REGISTRATION IS NOT REQUIRED.

**CALANDO PHARMACEUTICALS, INC.**  
**UNSECURED CONVERTIBLE PROMISSORY NOTE AGREEMENT**

\$ \_\_\_\_\_

November \_\_, 2008  
No. 01 \_\_\_\_\_

THIS UNSECURED CONVERTIBLE PROMISSORY NOTE AGREEMENT (this "Note"), dated November \_\_\_\_\_, 2008, is entered into by and between Calando Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and \_\_\_\_\_, an individual (the "Holder"). The Company hereby promises to pay to the Holder, subject to the conversion and redemption provisions set forth herein, the sum of \_\_\_\_\_ (the "Principal Amount"), plus interest thereon as set forth in Section 1 below, on or before the two (2) year anniversary of the date of this Note (the "Maturity Date"), all as provided herein.

This Note is being issued by the Company to the Holder as one of, and pursuant to the issuance of, Unsecured Convertible Promissory Note Agreements ("Unsecured Convertible Promissory Note Agreements") in the minimum aggregate of One Million Dollars (\$1,000,000) and the maximum aggregate of Five Million Dollars (\$5,000,000), as more specifically described in the Company's Confidential Private Placement Memorandum, as such may be amended from time to time (the "Offering").

Section 1. Interest Rate. Interest shall accrue on the Principal Amount of this Note at a fixed annual rate equal to ten percent (10.0%), compounded annually. Interest shall accrue until the Principal Amount shall be paid in full or, if sooner, until the occurrence of a: (a) Conversion; or (b) a redemption pursuant to Section 2 below.

Section 2. Payments; Company Redemption Option. All payments of interest and principal pursuant to this Note shall be made in U.S. Dollars by check or by wire transfer of immediately available funds. Prior to a Conversion, upon five (5) business days advance notice ("Redemption Notice"), the Company may redeem this Note by paying to the Holder an amount equal to two (2) times then outstanding principal amount of this Note, plus all interest accrued on such then outstanding principal amount (the "Redemption Amount"). Upon receiving a Redemption Notice, the Holder may at his sole option instead convert the then outstanding Principal Amount of this Note plus all accrued and unpaid interest thereon ("Convertible Amount") to Common Shares pursuant to Section 3 below. If not sooner redeemed or converted

as set forth in Section 3 below, the unpaid Principal Amount of this Note, together with interest accrued and unpaid thereon, shall be due and payable in full on the Maturity Date.

Section 3. Conversion; Holder Redemption Option.

(a) Holder Conversion Option. At any time, at the option of the Holder, all or any part of the Conversion Amount, may be converted into Common Shares at the Conversion Price.

(b) Redemption by the Company. The Company shall provide the Holder twenty (20) days advance written notice of the consummation of a Company Sale (the "Company Sale Notice"). Within ten (10) days following the receipt of such Company Sale Notice, the Holder shall provide written notice to the Company as to whether, at the Holder's option and effective upon such Company Sale: (i) the Convertible Amount shall automatically be converted into Common Shares at the Conversion Price ("Conversion Option") or (ii) the Company shall redeem this Note by paying to the Holder an amount equal to the Redemption Amount. Notwithstanding anything contained herein to the contrary, if Holder chooses the Redemption Option, Holder shall be paid from the proceeds from a Company Sale (A) prior to all of the Company's Common Share holders and creditors; and (B) on a pari passu basis with other all other holders of Unsecured Convertible Promissory Note Agreements issued in connection with the Offering.

(c) If and whenever the Company, subsequent to the date hereof subdivides its outstanding Common Shares into a larger number of Common Shares, or combines its outstanding Common Shares into a smaller number of Common Shares, then the Conversion Price shall be adjusted proportionately, as determined by the Company in good faith.

(d) Effective upon a Conversion, this Note automatically will be canceled and no longer deemed to be outstanding and all rights with respect to this Note will forthwith cease and terminate, except the right of the Holder of this Note to receive Common Shares issuable upon Conversion of this Note. Promptly following any Conversion, the Company shall deliver to the Holder a certificate for the underlying Common Shares in the name of the Holder.

Section 4. Events of Default. Notwithstanding anything to the contrary provided herein, the occurrence of any one or more of the following shall be an "Event of Default" hereunder and, upon the occurrence of an Event of Default, any and all principal and interest due hereunder shall be immediately due and payable (but subject to the conversion rights set forth herein) and the Holder then shall have all of the rights and remedies afforded creditors generally by the applicable federal laws or the laws of the State of Delaware:

(a) The failure by the Company to pay within sixty (60) days following when due any principal or interest under this Note; or

(b) The Company: (i) shall make an assignment for the benefit of creditors; (ii) shall be adjudicated bankrupt or insolvent; (iii) shall seek the appointment of, or be the subject of an order appointing, a trustee, liquidator or receiver as to all or part of its assets; (iv) shall commence, approve or consent to, any case or proceeding under any bankruptcy, reorganization or similar law and, in the case of an involuntary case or proceeding, such case or proceeding is not dismissed within ninety (90) days following the commencement thereof; or (v) shall be the

subject of an order for relief in an involuntary case under federal bankruptcy law not dismissed within 90 days following the date of such order for relief.

Section 5. Holder Representations and Covenants.

(a) The Holder is acquiring this Note, and the Common Shares into which this Note may be converted, for his, her or its own account for investment and not with a view to, or for sale in connection with, any distribution thereof, nor with any present intention of distributing or selling the same; and the Holder has no present or contemplated agreement, undertaking, arrangement, obligation, indebtedness or commitment providing for the disposition thereof.

(b) The Holder is an “accredited investor” as defined in Rule 501(a) under the Securities Act of 1933, as amended (the “Securities Act”). The Holder has made detailed inquiry concerning the Company, its business and its personnel and has reviewed the Confidential Private Placement Memorandum issued by the Company in connection with the Offering; the officers of the Company have made available to the Holder any and all written information which he, she or it has requested and have answered to the Holder’s satisfaction all inquiries made by the Holder; and the Holder has sufficient knowledge and experience in finance and business that he, she or it is capable of evaluating the risks and merits of his, her or its investment in the Company and the Holder is able financially to bear the risks thereof.

(c) The Holder has full power and authority to execute this Note and to perform his, her or its obligations hereunder. If the Holder is a corporation, limited liability company, partnership or trust, the Holder represents that (i) it has not been organized, reorganized or recapitalized specifically for the purpose of investing in the Company and (ii) the undersigned is the duly authorized representative of such entity.

(d) In connection with a Conversion, the Holder shall, to the extent such Holder is not already a party thereto, execute and deliver the Company’s Second Amended and Restated Investors’ Rights Agreement, as such agreement may be amended and/or restated from time to time (the “Investors’ Rights Agreement”).

(e) The Holder acknowledges and agrees that the Company’s current lender (and majority stockholder) Arrowhead Research Corporation, a Delaware corporation (“Arrowhead”), has the right to and intends to (but has no contractual obligation to) convert the aggregate outstanding indebtedness (including interest) owed by the Company to Arrowhead, into unsecured convertible promissory note agreements which will be substantially the same in form and substance as this Note (the “Arrowhead Notes”); provided, however, that the Arrowhead Notes will: (A) bear interest at 6%; and (B) will be subordinate in the right of payment to this Note and the other Offered Notes.

Section 6. Restricted Securities; Requirements for Transfer. The Holder understands that the Note (and the underlying Common Shares) are “restricted securities” under applicable U.S. Federal and state securities laws and that, pursuant to these laws, the Holder must hold the Note (and the underlying Common Shares) indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Holder acknowledges that the

Company has no obligation to register or qualify the Note, or the Common Shares into which it may be converted, for resale, except as set forth in the Investors' Rights Agreement. The Holder further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Common Shares, and on requirements relating to the Company which are outside of the Holder's control, and which the Company is under no obligation and may not be able to satisfy. This Note shall not be sold or transferred unless either (i) it first shall have been registered under the Securities Act, or (ii) the Company first shall have been furnished with an opinion of legal counsel, or other evidence, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the Securities Act and the Company shall have provided its prior written consent to such sale or transfer. Any person, corporation, partnership or other entity to which this Note is transferred by the Holder, whether voluntarily or by operation of law, shall be bound by the obligations of the Holder hereunder to the same extent as if such transferee were the original Holder of this Note and the Holder shall not transfer this Note unless the transferee provides a written instrument to the Company notifying the Company of such transfer and agreeing in writing to be bound by the terms of this Note.

Section 7. Reservation of Common Shares. The Company shall at all times reserve and keep available for issuance the number of Common Shares that is sufficient to provide for the Conversion of this Note. The Company covenants that all Common Shares issuable upon Conversion of this Note will, upon issuance in accordance with the terms of this Note, be duly and validly issued, fully paid and non-assessable, and free of restrictions on transfer other than restrictions imposed or created under this Note, the Investors' Rights Agreement, by applicable law, or by the Holder.

Section 8. No Rights or Liabilities as Shareholders of the Company. This Note does not by itself entitle the Holder to any voting rights or other rights as a shareholder of the Company. In the absence of Conversion of this Note, no provisions of this Note, and no enumeration herein of the rights or privileges of the Holder shall cause such Holder to be a shareholder of the Company for any purpose by virtue hereof.

Section 9. Use of Proceeds. The Company shall use the funds from this Note for general corporate purposes, including, without limitation, in support of Company-sponsored clinical trials and preclinical candidate development.

Section 10. Information & Voting Rights. Upon the reasonable request of the Holder, the Company shall provide to the Holder copies of its annual and quarterly financial statements. The Holder agrees to maintain all such information confidential and shall not disclose such information to any third parties without the written consent of the Company. The Holder shall have no voting rights prior to the conversion of their Notes into Common Shares.

Section 11. Waivers.

(a) Except for the notices required by this Note, the Company waives demand, presentment, protest, notice of protest, notice of dishonor, notice of intent to accelerate, notice of acceleration, and all other notices or demands of any kind or nature with respect to this Note.

(b) The Company agrees that a waiver of rights under this Note shall not be deemed to be made by the Holder unless such waiver shall be in writing, duly signed by the Holder, and each such waiver, if any, shall apply only with respect to the specific instance involved and shall in no way impair the rights of the Holder or the obligations of the Company in any other respect at any other time.

(c) The Company agrees that in the event the Holder demands or accepts partial payment of this Note, such demand or acceptance shall not be deemed to constitute a waiver of any right to demand the entire balance of this Note at any time in accordance with the terms of this Note.

Section 12. Usury. None of the terms of this Note shall ever be construed to create a contract to pay interest at a rate in excess of the maximum rate permitted to be charged under applicable law.

Section 13. Governing Law; Jurisdiction. This Note shall be governed by and construed in accordance with the laws of the State of Delaware without giving effect to conflict of laws principles thereof.

Section 14. Miscellaneous. All notices and other communications provided for in this Note or otherwise required by law shall be given in writing and delivered in person, mailed, first class, postage prepaid, or sent by a nationally-recognized or overnight delivery service addressed to the Company or the Holder at their respective addresses set forth in the first paragraph of this Note (or at such other address or telecopy number as such party shall designate by like notice). All notices, demands and other communications shall be deemed to have been duly given when delivered by hand, if personally delivered; when delivered by courier, if delivered by commercial courier service; and three (3) business days after being deposited in the mail, postage prepaid, if mailed. This Note constitutes a final written expression of all the terms of the agreement between the Company and the Holder regarding the subject matter hereof, is a complete and exclusive statement of those terms, and supersedes all prior and contemporaneous agreements, understandings, and representations between the Company and the Holder. If any provision or any word, term, clause, or other part of any provision of this Note shall be invalid for any reason, the same shall be ineffective, but the remainder of this Note shall not be affected and shall remain in full force and effect. This Note may be executed in multiple counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument

Section 15. Certain Defined Terms. As used in this Note, the following terms shall have the following meanings:

“Common Shares” means shares of the Common Stock, \$0.0001 par value per share, of the Company.

“Conversion” means the conversion of the Convertible Amount into Common Shares, as set forth in Section 3 of this Note.

“Convertible Amount” means the then outstanding Principal Amount of this Note plus all accrued and unpaid interest thereon.

“Company Sale” means the earliest to occur of; (a) the sale, exchange, or other transfer by any shareholder(s) of the Company of capital stock representing, individually or in the aggregate, greater than fifty percent (50%) of the outstanding voting capital of the Company; (b) a merger, consolidation, reorganization, or other transaction approved by the shareholders that would directly or indirectly produce the results described in (a) above; (c) a sale of all or substantially all of the Company’s assets approved by the shareholders; or (d) the consummation of an exclusive license of i) substantially all of the Company’s intellectual property assets; and/or to the ii) RONDEL siRNA delivery system, to a third party for a prepaid fee exceeding the Redemption Amount.

“Conversion Price” means a price equal to \$0.576647 per Common Share, subject to adjustment in accordance with Section 3(d) of this Note.

“Convertible Securities” shall mean indebtedness or securities of the Company which are convertible into Common Shares, either immediately or upon the consummation of a Company Sale.

“Offered Notes” means the Unsecured Convertible Promissory Note Agreements issued pursuant to the Offering.

“Purchase Rights” shall mean any warrants, options or other rights to subscribe for, purchase or otherwise acquire any Common Shares or any Convertible Securities, either immediately or upon the arrival of a specified date or the happening of a specified event.

“Redemption Amount” means two (2) times the then outstanding principal amount of this Note, plus all interest accrued on such then outstanding principal amount

\* \* \* \* \*



IN WITNESS WHEREOF, the undersigned have executed this Unsecured Convertible Promissory Note Agreement on the date first above written.

**CALANDO PHARMACEUTICALS, INC.**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

HOLDER:  
\_\_\_\_\_  
Name: \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_





EXHIBIT C  
SECOND AMENDED AND RESTATED  
CERTIFICATE OF INCORPORATION  
OF  
CALANDO PHARMACEUTICALS, INC.  
  
(Pursuant to Sections 242 and 245 of the  
General Corporation Law of the State of Delaware)

Calando Pharmaceuticals, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the “**General Corporation Law**”),

**DOES HEREBY CERTIFY:**

1. That the name of this corporation is Calando Pharmaceuticals, Inc., and that this corporation was originally incorporated pursuant to the General Corporation Law on February 24, 2000 under the name Insert Therapeutics, Inc.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

**RESOLVED**, that the Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

**FIRST:** The name of this corporation is Calando Pharmaceuticals, Inc. (the “Corporation”).

**SECOND:** The address of the registered office of the Corporation in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

**THIRD:** The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

**FOURTH:** The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 225,000,000 shares of Common Stock, \$0.0001 par value per share (“Common Stock”), and (ii) 50,000,000 shares of Preferred Stock, \$0.0001 par value per share (“Preferred Stock”).

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation. Unless otherwise indicated, references to “Sections” or “Subsections” in this Article refer to sections and subsections of this Article Fourth.

## A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein and as may be designated by resolution of the Board of Directors with respect to any series of Preferred Stock as authorized herein.

2. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings). No person entitled to vote at an election for directors may cumulate votes to which such person is entitled, unless, at the time of such election, the Corporation is subject to Section 2115 of the California Corporations Code. During such time or times that the Corporation is subject to Section 2115(b) of the California Corporations Code, every stockholder entitled to vote at an election for directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which such stockholder's shares are otherwise entitled, or distribute the stockholder's votes on the same principle among as many candidates as such stockholder desires. No stockholder, however, shall be entitled to so cumulate such stockholder's votes unless (i) the names of such candidate or candidates have been placed in nomination prior to the voting and (ii) the stockholder has given notice at the meeting, prior to the voting, of such stockholder's intention to cumulate such stockholder's votes. If any stockholder has given proper notice to cumulate votes, all stockholders may cumulate their votes for any candidates who have been properly placed in nomination. Under cumulative voting, the candidates receiving the highest number of votes, up to the number of directors to be elected, are elected.

## B. PREFERRED STOCK

### 1. Issuance and Reissuance.

Preferred Stock may be issued from time to time in one or more series, each of such series to consist of such number of shares and to have such terms, rights, powers and preferences, and the qualifications and limitations with respect thereto, as stated or expressed herein. Any shares of Preferred Stock which may be redeemed, purchased or acquired by the Corporation may be reissued except as otherwise provided by law or by the terms of any series of Preferred Stock.

## C. SERIES A PREFERRED STOCK

\_\_\_\_\_ shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated "**Series A Preferred Stock**" with the following rights, preferences, powers, privileges and restrictions, qualifications and limitations.

### 1. Dividends.

The Corporation shall not declare or pay any dividend nor make any other distribution, on or with respect to the Common Stock, or any other equity security of the Corporation, so long as any share of the Series A Preferred Stock is outstanding.

## 2. Liquidation, Dissolution or Winding Up; Certain Mergers.

(a) Payments to Holders of Series A Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets available for distribution to the Corporation's stockholders, by reason of their ownership thereof and before any payment shall be made to the holders of Common Stock or to Arrowhead Research Corporation ("**Arrowhead**") or any successor or assign of Arrowhead to satisfy the \$5.3 million in unsecured demand notes held by Arrowhead, an amount (the "**Series A Preferential Amount**") equal to (i) two and one-half (2.5) times the Series A Original Issue Price (subject to appropriate adjustment in the event of any stock split, combination or other similar recapitalization affecting such shares), less (ii) the sum of any dividends on a per share basis previously paid to the holder of such Series A Preferred Stock. For purposes hereof, (i) "**Series A Original Issue Price**" shall mean One Thousand Dollars (\$1,000) per share of Series A Preferred Stock issued on the Series A Original Issue Date and (ii) "**Series A Original Issue Date**" shall mean the date on which the first share of Series A Preferred Stock was issued. If upon any such liquidation, dissolution or winding up of the Corporation, the remaining assets available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock the full aforesaid Series A Preferential Amount to which they shall be entitled, the holders of shares of Series A Preferred Stock shall share ratably in any distribution of the remaining assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(b) Payments to Holders of Common Stock. After the payment of the Series A Preferential Amount required to be paid to each holder of Series A Preferred Stock, the holders of shares of Common Stock then outstanding shall be entitled to receive the remaining assets of the Corporation available for distribution to its stockholders as otherwise set forth in this Certificate of Incorporation.

### (c) Deemed Liquidation Events.

(i) A merger or consolidation in which (A) the Corporation is a constituent party, or (B) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation, shall be deemed to be a liquidation of the Corporation for purposes of this Section 2 (a "**Deemed Liquidation Event**"), except in either case (1) for any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted or exchanged for shares of capital stock which represent, immediately following such merger or consolidation at least a majority, by voting power, of the capital stock of (y) the surviving or resulting corporation or (z) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation (provided, that, for the purpose of this Subsection 2(c)(i), all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such merger or consolidation or upon conversion of Convertible Securities outstanding immediately prior to such merger or consolidation shall be

deemed to be outstanding immediately prior to such merger or consolidation and, if applicable, converted or exchanged in such merger or consolidation on the same terms as the actual outstanding shares of Common Stock are converted or exchanged), or (2) if the holders of no less than 51% of the Series A Preferred Stock elect otherwise by written notice given to the Corporation within 30 days after receipt of the Corporation's advance written notice to the holders of Series A Preferred Stock of such event.

(ii) The Corporation shall not have the power to effect any transaction constituting a Deemed Liquidation Event pursuant to Subsection 2(c)(i)(A) above unless the agreement or plan of merger or consolidation provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2(a) and 2(b), above.

(iii) The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger or consolidation shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation. The value of such property, rights or securities shall be determined in good faith by the Board of Directors of the Corporation.

### 3. Voting.

Shares of Series A Preferred Stock shall have no voting rights whatsoever except as set forth in Section 4 below or where expressly required by the General Corporation Law notwithstanding this general denial of voting rights.

### 4. Protective Provisions.

(a) Series A Preferred Stock Protective Provisions. At any time when any shares of Series A Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class:

(i) amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation in a manner that adversely affects the powers, preferences or rights of the Series A Preferred Stock; or

(ii) create, or authorize the creation of, or issue or obligate itself to issue shares of, any additional class or series of capital stock unless the same ranks junior to the Series A Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends and rights of redemption, or increase the authorized number of shares of Series A Preferred Stock; or

(iii) purchase or redeem (or permit any subsidiary to purchase or redeem) any shares of capital stock of the Corporation other than (i) redemptions of the Series A Preferred Stock as expressly authorized herein, and (ii) repurchases of stock from former

employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof.

#### 5. Optional Conversion.

The holders of the Series A Preferred Stock shall have conversion rights as follows (the “**Conversion Rights**”):

(a) Right to Convert. Each share of Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series A Conversion Price (as defined below) in effect at the time of conversion by 0.576647. The “**Series A Conversion Price**” shall initially be equal to the Series A Original Issue Price, and hereafter shall be equal to the Series A Original Issue Price less the sum of any dividends on a per share basis previously paid to the holder of such Series A Preferred Stock (provided, that if the sum of all dividends paid to the holder of such Series A Preferred Stock equals or exceeds the Series A Original Issue Price, then such holder’s Conversion Rights pursuant to this Section 5 shall terminate). Such initial Series A Conversion Price, and the rate at which shares of Series A Preferred Stock may be converted into shares of Common Stock, shall be subject to further adjustment as provided below.

In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Series A Preferred Stock.

(b) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Series A Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors of the Corporation. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

#### (c) Mechanics of Conversion.

(i) In order for a holder of Series A Preferred Stock to voluntarily convert shares of Series A Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Series A Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Series A Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer



agent), together with written notice that such holder elects to convert all or any number of the shares of the Series A Preferred Stock represented by such certificate or certificates and, if applicable, any event on which such conversion is contingent. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent of such certificates (or lost certificate affidavit and agreement) and notice (or by the Corporation if the Corporation serves as its own transfer agent) shall be the time of conversion (the "**Conversion Time**"), and the shares of Common Stock issuable upon conversion of the shares represented by such certificate shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time, issue and deliver at such office to such holder of Series A Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled, together with cash in lieu of any fraction of a share.

(ii) The Corporation shall at all times when the Series A Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued stock, for the purpose of effecting the conversion of the Series A Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Series A Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series A Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Series A Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the Series A Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of Common Stock at such adjusted Series A Conversion Price.

(iii) All shares of Series A Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares, including the rights, if any, to receive notices and to vote, shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment of any dividends declared but unpaid thereon. Any shares of Series A Preferred Stock so converted shall be retired and cancelled and shall not be reissued as shares of such series, and the Corporation (without the need for stockholder action) may from time to time take such appropriate action as may be necessary to reduce the authorized number of shares of Series A Preferred Stock accordingly.

(iv) Upon any such conversion, no adjustment to the Series A Conversion Price shall be made for any declared but unpaid dividends on the Series A Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

(v) The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Series A Preferred Stock pursuant to this Section 5. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Series A Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

(d) Adjustments to Series A Conversion Price for Diluting Issues.

(i) Special Definitions. For purposes of this Section 5, the following definitions shall apply:

(A) “**Option**” shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(B) “**Convertible Securities**” shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(C) “**Additional Shares of Common Stock**” shall mean all shares of Common Stock issued (or, pursuant to Subsection 5(d)(iii) below, deemed to be issued) by the Corporation after the Series A Original Issue Date, other than the following (“**Exempted Securities**”):

(I) shares of Common Stock issued or deemed issued as a dividend or distribution on Series A Preferred Stock;

(II) shares of Common Stock issued or issuable by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 5(e) or 5(f) below;

(III) shares of Common Stock issued or deemed issued to employees or directors of, or consultants to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Corporation;

(IV) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of

Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security; or

(V) shares of Common Stock issued or issuable (1) to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors of the Corporation, (2) to suppliers or third party service providers in connection with the provision of goods or services pursuant to transactions approved by the Board of Directors, (3) pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided, that such issuances are approved by the Board of Directors, or (4) in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships approved by the Board of Directors.

(ii) No Adjustment of Series A Conversion Price. No adjustment in the Series A Conversion Price shall be made as the result of the issuance of Additional Shares of Common Stock if: (A) the consideration per share (determined pursuant to Subsection 5(d)(v)) for such Additional Shares of Common Stock issued or deemed to be issued by the Corporation is equal to or greater than the applicable Series A Conversion Price in effect immediately prior to the issuance or deemed issuance of such Additional Shares of Common Stock, or (B) prior to such issuance or deemed issuance, the Corporation receives written notice from the holders of at least 51% of the then outstanding shares of Series A Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

(iii) Deemed Issue of Additional Shares of Common Stock.

(A) If the Corporation at any time or from time to time after the Series A Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which, upon exercise, conversion or exchange thereof, would entitle the holder thereof to receive Exempted Securities or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(B) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Series A Conversion Price pursuant to the

terms of Subsection 5(d)(iv) below, are revised (either automatically pursuant to the provisions contained therein or as a result of an amendment to such terms) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then, effective upon such increase or decrease becoming effective, the Series A Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Series A Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no adjustment pursuant to this clause (B) shall have the effect of increasing the Series A Conversion Price to an amount which exceeds the lower of (i) the Series A Conversion Price on the original adjustment date, or (ii) the Series A Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock between the original adjustment date and such readjustment date.

(C) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which, upon exercise, conversion or exchange thereof, would entitle the holder thereof to receive Exempted Securities, the issuance of which did not result in an adjustment to the Series A Conversion Price pursuant to the terms of Subsection 5(d)(iv) below (either because the consideration per share (determined pursuant to Subsection 5(d)(v) hereof) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Series A Conversion Price then in effect, or because such Option or Convertible Security was issued before the Series A Original Issue Date), are revised after the Series A Original Issue Date (either automatically pursuant to the provisions contained therein or as a result of an amendment to such terms) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 5(d)(iii)(A) above) shall be deemed to have been issued effective upon such increase or decrease becoming effective. If the change in such Option or Convertible Security causes an adjustment pursuant to this provision and such Option or Convertible Security is then further changed as a result of the adjustments made pursuant to this provision, no further adjustment shall be made hereunder as a result of the further automatic change in such Option or Convertible Security.

(D) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Series A Conversion Price pursuant to the terms of Subsection 5(d)(iv) below, the Series A Conversion Price shall be readjusted to such Series A Conversion Price as would have obtained had such Option or Convertible Security never been issued.

(iv) Adjustment of Series A Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Series A Original Issue Date issue Additional Shares of Common Stock (including Additional

Shares of Common Stock deemed to be issued pursuant to Subsection 5(d)(iii)), without consideration or for a consideration per share less than the applicable Series A Conversion Price in effect immediately prior to such issue, then the Series A Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) * (A + C)$$

For the purposes of the foregoing formula, the following definitions shall apply:

(A)  $CP_2$  shall mean the Series A Conversion Price in effect immediately after such issue of Additional Shares of Common Stock;

(B)  $CP_1$  shall mean the Series A Conversion Price in effect immediately prior to such issue of Additional Shares of Common

Stock;

(C) "A" shall mean the number of shares of Common Stock outstanding and deemed outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion of Convertible Securities (including the Series A Preferred Stock) outstanding immediately prior to such issue);

(D) "B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to  $CP_3$  (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by  $CP_1$ ); and

(E) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

(v) Determination of Consideration. For purposes of this Subsection 5(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(A) Cash and Property: Such consideration shall:

(I) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(II) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and

(III) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of

the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (I) and (II) above, as determined in good faith by the Board of Directors of the Corporation.

(B) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 5(d)(iii), relating to Options and Convertible Securities, shall be determined by dividing

(I) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(II) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(vi) Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Series A Conversion Price pursuant to the terms of Subsection 5(d)(iv) above, and such issuance dates occur within a period of no more than 180 days from the first such issuance to the final such issuance, then, upon the final such issuance, the Series A Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without additional giving effect to any adjustments as a result of any subsequent issuances within such period).

(e) Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Series A Original Issue Date effect a subdivision of the outstanding Common Stock without a comparable subdivision of the Series A Preferred Stock or combine the outstanding shares of Series A Preferred Stock without a comparable combination of the Common Stock, the Series A Conversion Price in effect immediately before that subdivision or combination shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Series A Original Issue Date

combine the outstanding shares of Common Stock without a comparable combination of the Series A Preferred Stock or effect a subdivision of the outstanding shares of Series A Preferred Stock without a comparable subdivision of the Common Stock, the Series A Conversion Price in effect immediately before the combination or subdivision shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

(f) Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series A Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event, the Series A Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Series A Conversion Price then in effect by a fraction:

(i) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(ii) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Series A Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Series A Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and provided further, however, that no such adjustment shall be made if the holders of Series A Preferred Stock simultaneously receive (i) a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Series A Preferred Stock had been converted into Common Stock on the date of such event or (ii) a dividend or other distribution of shares of Series A Preferred Stock which are convertible, as of the date of such event, into such number of shares of Common Stock as is equal to the number of additional shares of Common Stock being issued with respect to each share of Common Stock in such dividend or distribution.

(g) Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series A Original Issue Date shall make or issue, or fix a record date for the determination of holders of capital stock of the Corporation entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 2 do not apply to such dividend or

distribution, then and in each such event, the holders of Series A Preferred Stock shall receive, simultaneously with the distribution to the holders of such capital stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Series A Preferred Stock had been converted into Common Stock on the date of such event,

(h) Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 3(c), if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Series A Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections (e), (f) or (g) of this Section 5), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Series A Preferred Stock shall thereafter be convertible, in lieu of the Common Stock into which it was convertible prior to such event, into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Series A Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors of the Corporation) shall be made in the application of the provisions in this Section 5 with respect to the rights and interests thereafter of the holders of the Series A Preferred Stock, to the end that the provisions set forth in this Section 5 (including provisions with respect to changes in and other adjustments of the Series A Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Series A Preferred Stock.

(i) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Series A Conversion Price pursuant to this Section 5, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Series A Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the Series A Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Series A Preferred Stock (but in any event not later than 10 days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Series A Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of Series A Preferred Stock.

(j) Notice of Record Date. In the event;

(i) the Corporation shall take a record of the holders of its Common Stock (or other stock or securities at the time issuable upon conversion of the Series A Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or



(ii) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(iii) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of the Series A Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time issuable upon the conversion of the Series A Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Series A Preferred Stock and the Common Stock. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice. Any notice required by the provisions hereof to be given to a holder of shares of Preferred Stock shall be deemed sent to such holder if deposited in the United States mail, postage prepaid, and addressed to such holder at his, her or its address appearing in the books of the Corporation.

#### 6. Mandatory Conversion.

(a) Upon the earlier of (A) the closing of the sale of shares of Common Stock to the public in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least \$20 million of aggregate proceeds, net of the underwriting discount and commissions, to the Corporation (a “**Qualified Public Offering**”) or (B) a date specified by vote or written consent of the holders of at least 51% of the then outstanding shares of Series A Preferred Stock (the “**Mandatory Conversion Date**”), (i) all outstanding shares of Series A Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective Series A Conversion Price and (ii) such shares may not be reissued by the Corporation as shares of such series.

(b) All holders of record of shares of Series A Preferred Stock shall be given written notice of the Mandatory Conversion Date and the place designated for mandatory conversion of all such shares of Series A Preferred Stock pursuant to this Section 6. Such notice need not be given in advance of the occurrence of the Mandatory Conversion Date. Such notice shall be sent by first class or registered mail, postage prepaid, or given by electronic communication in compliance with the provisions of the General Corporation Law, to each record holder of Series A Preferred Stock. Upon receipt of such notice, each holder of shares of Series A Preferred Stock shall surrender his, her or its certificate or certificates for all such shares to the Corporation at the place designated in such notice, and shall thereafter receive certificates for the number of shares of Common Stock to which such holder is entitled pursuant to this Section 6. On the Mandatory Conversion Date, all outstanding shares of Series A

Preferred Stock shall be deemed to have been converted into shares of Common Stock, which shall be deemed to be outstanding of record, and all rights with respect to the Series A Preferred Stock so converted, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate, except only the rights of the holders thereof, upon surrender of their certificate or certificates therefor, to receive certificates for the number of shares of Common Stock into which such Series A Preferred Stock has been converted, and payment of any declared but unpaid dividends thereon. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. As soon as practicable after the Mandatory Conversion Date and the surrender of the certificate or certificates for Series A Preferred Stock, the Corporation shall cause to be issued and delivered to such holder, or on his, her or its written order, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and cash as provided in Subsection 5(b) in respect of any fraction of a share of Common Stock otherwise issuable upon such conversion.

(c) All certificates evidencing shares of Series A Preferred Stock which are required to be surrendered for conversion in accordance with the provisions hereof shall, from and after the Mandatory Conversion Date, be deemed to have been retired and cancelled and the shares of Series A Preferred Stock represented thereby converted into Common Stock for all purposes, notwithstanding the failure of the holder or holders thereof to surrender such certificates on or prior to such date. Such converted Series A Preferred Stock may not be reissued as shares of such Series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Series A Preferred Stock accordingly.

#### 7. Redemption.

(a) The Corporation may elect, at any time and from time to time, to redeem any or all of the Series A Preferred Stock by delivering a written notice of such election (a "Redemption Election") to the holders of such Series A Preferred Stock. Such redemption shall be at the applicable Series A Preferential Amount, in a single installment on the date set forth in the Redemption Election (the "Redemption Date"). In the event that a Redemption Election is delivered pursuant to this Section 7(a), the Corporation shall pay the aggregate Series A Preferential Amount for the Series A Preferred Shares to be redeemed on the Redemption Date by paying the aggregate Series A Preferential Amount due to each holder upon surrender to the Corporation by the holder of the certificate or certificates representing the Series A Preferred Stock being redeemed (together with a proper assignment of such certificates) as provided in Section 7(b) below and by setting aside for payment the aggregate Series A Preferential Amount due to each holder who has not surrendered its certificates.

(b) On the Redemption Date, each holder of shares of Series A Preferred Stock shall surrender the certificate or certificates representing the shares being redeemed (together with a proper assignment of such certificates) to the Corporation in exchange for payment of the applicable Series A Preferential Amount for such shares. In the event that the number of shares of Series A Preferred Stock to be redeemed by the Corporation on the

Redemption Date is less than the number of shares of Series A Preferred Stock represented by such certificate(s), the Corporation shall re-issue and deliver to such holder on such Redemption Date a certificate representing the number of shares of Series A Preferred Stock which are not to be redeemed or for which the Series A Preferential Amount has not been paid in full.

(c) If on the Redemption Date the Corporation shall have set aside the Series A Preferential Amount for payment for the shares of Series A Preferred Stock being redeemed, then without any action on the part of the holders thereof: (i) the shares of Series A Preferred Stock issued and outstanding and to be so converted immediately prior to the Redemption Date shall be converted on the Redemption Date solely into the right to receive the Series A Preferential Amount; (ii) such shares of Series A Preferred Stock shall cease to be outstanding and shall be canceled and retired; and (iii) each holder of such shares of Series A Preferred Stock shall thereafter cease to have any rights with respect to such shares, except the right to receive, without interest, the Series A Preferential Amount upon the surrender of a certificate or certificates representing such shares. If on the Redemption Date the Corporation shall not have set aside for payment an amount equal to the aggregate Series A Preferential Amount for the Series A Preferred Stock, then until such amount shall have been set aside for payment, such Series A Preferred Stock shall be, and shall be deemed to be, outstanding for all purposes and the holder of such Series A Preferred Stock shall be entitled to exercise all rights and benefits to which a holder of Series A Preferred Stock is entitled hereunder.

(d) If the Corporation elects to redeem any, but less than all, of the Series A Preferred Stock pursuant to Section 7(a) above, the Corporation shall redeem such shares from all holders of the then outstanding shares of Series A Preferred Stock on a pro-rata basis.

8. Waiver. Any of the rights, powers or preferences of the holders of Series A Preferred Stock set forth herein may be waived and/or defeased by the affirmative consent or vote of the holders of at least 51 % of the shares of Series A Preferred Stock then outstanding.

**FIFTH:** Subject to any additional vote required by this Certificate of Incorporation, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

**SIXTH:** Subject to any additional vote required by this Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

**SEVENTH:** Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

**EIGHTH:** Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

**NINTH:** To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of

fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

**TENTH:** To the fullest extent permitted by applicable law, the Corporation shall provide indemnification of (and advancement of expenses to) directors, officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

Any amendment, repeal or modification of the foregoing provisions of this Article Tenth shall not adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director, officer or other agent occurring prior to, such amendment, repeal or modification.

**ELEVENTH:** Subject to any additional vote required by this Certificate of Incorporation, the Corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

**TWELFTH:** The Corporation renounces any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An **“Excluded Opportunity”** is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Series A Preferred Stock and/or Common Stock or any partner, member, director, stockholder, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, **“Covered Persons”**), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person’s capacity as a director of the Corporation.

**THIRTEENTH:** In connection with repurchases by the Corporation of its Common Stock from employees, officers, directors, advisors, consultants or other persons performing services for the Corporation or any subsidiary pursuant to agreements under which the Corporation has the option to repurchase such shares at cost upon the occurrence of certain

events, such as the termination of employment, Sections 502 and 503 of the California Corporations Code shall not apply in all or in part with respect to such repurchases.

\* \* \*

3. The foregoing amendment and restatement was approved by the holders of the requisite number of shares of said corporation in accordance with Section 228 of the General Corporation Law.

4. That said Second Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of the Corporation's Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

**IN WITNESS WHEREOF**, this Second Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of the Corporation on this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

By: \_\_\_\_\_  
President

EXHIBIT D  
EQUIPMENT

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of 4 pages were omitted. [\*\*]

FOURTH AMENDMENT  
to  
LICENSE AGREEMENT

This FOURTH AMENDMENT (“Fourth Amendment”) effective as of August 5, 2013, by and between Calando Pharmaceuticals, Inc. (“Calando,” formerly known as Insect Therapeutics, Inc., herein referred to also as “Licensee”) and California Institute of Technology (“Caltech”) amends the License Agreement between Licensee and Caltech dated as of May 22, 2000, as amended December 10, 2001, January 13, 2003, and June 19, 2009 and pursuant to the letter agreement between and among Caltech, Calando and Cerulean Pharma Inc. (“Cerulean”) dated June 11, 2009 (the “Side Letter”) (the “Agreement”). Licensee and Caltech are sometimes referred to herein individually as a “party” and collectively as the “parties”. Capitalized terms which are not defined in this Fourth Amendment shall have the meanings set forth in the Agreement.

WHEREAS, Licensee wishes to terminate its rights and obligations under the Agreement, and Caltech and Licensee wish to amend and clarify the License Agreement prior to such termination.

NOW THEREFORE, Licensee and Caltech agree this Fourth Amendment shall amend Section 3.13 to the Agreement, which shall read as follows:

**3.13 Cerulean Royalties.** Licensee shall apply any monies it receives from Cerulean toward satisfying the Liabilities and paying the aggregate UCPNA Redemption Amount and aggregate Series A Preferential Amount (collectively “Licensee Financial Obligations”). Only after the earlier of i) Licensee’s satisfaction of all of the Licensee Financial Obligations in full and Caltech’s and Cerulean’s receipt of written notice thereof from Calando, or ii) one (1) year following a first commercial sale by Cerulean under the Cerulean Transaction of a Licensed Product shall Caltech receive [\*\*]% of any Cerulean Royalties that Licensee receives. For the sake of clarity, Cerulean Royalties do not include any upfront payments, development, third-party sublicensing or sales milestone payments associated with the Cerulean Transaction. Caltech has invoiced Licensee thirty thousand dollars (\$30,000.00) for outstanding minimum annual royalties due under Section 3.7 of the Agreement in invoices, a copy of each of which is attached to the Fourth Amendment as Exhibit A (“Outstanding Royalties”). Licensee shall pay such amounts on or before the later of (a) [\*\*] business days after the date on such invoices or (b) [\*\*]. Caltech acknowledges and expressly represents that upon Licensee’s payment of the Outstanding Royalties to Caltech in accordance with the foregoing and Caltech’s execution of this Fourth Amendment, no additional annual minimum royalties shall be sought by Caltech under Section 3.7 of the Agreement from Licensee.

Licensee and Caltech further agree this Fourth Amendment shall add Section 10.5 to the Agreement, which shall read as follows:

10.5 Caltech expressly agrees not to seek from Calando reimbursement under Article 10 of the License Agreement for any annuities, fees, expenses or patent costs of any kind incurred after August 6, 2013.

IN WITNESS WHEREOF, the parties have caused this Fourth Amendment to be executed:

**California Institute of Technology:**

Name: /s/ illegible  
Title: Chief Innovation and Corporate Partnerships Officer  
Date: 8/5/13

**Calando Pharmaceuticals, Inc.:**

Name: /s/ Oliver Fetzer  
Title: President  
Date: 8/5/13



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EXHIBIT A  
INVOICES  
(attached)



# INVOICE

Billing to:

Invoice Date 5/22/13

Invoice No. 2637

**Thomas A. Haag, Ph.D., J.D.**  
**General Counsel & Chief Patent Counsel**  
**Calando Pharmaceuticals (was Insect Therapeutics)**  
**129 N. Hill Ave.**  
**Suite 1044**  
**Pasadena, CA 91106**

Description	Charges
\$[**] Annual Minimum Royalty for 2012	\$ [**]
\$[**] Annual Minimum Royalty for 2013	
Total Now Due	\$ [**]

**Please reference Invoice No. 2637 on your payment.**

Please make checks payable to “California Institute of Technology” and mail payment to:

Fred Farina  
Chief Innovation Officer  
California Institute of Technology  
1200 E. California Boulevard (M/C 6-32)  
Pasadena, CA 91125

For questions about this invoice, please contact:

Lawrence Ingalls, Finance Manager  
Office of Technology Transfer  
(626) 395-2369 or iti@caltech.edu

Office of Technology Transfer  
California Institute of Technology  
1200 E. California Boulevard (M/C 6-32)  
Pasadena, CA 91125

Phone: (626) 395-8186  
Fax: (626) 356-2486





# INVOICE

Billing to:

Invoice Date 6/24/13

Invoice No. 2637-A

**Thomas A. Haag, Ph.D., J.D.**  
**General Counsel & Chief Patent Counsel**  
**Calando Pharmaceuticals (was Insert Therapeutics)**  
**129 N. Hill Ave.**  
**Suite 1044**  
**Pasadena, CA 91106**

Description	Charges
\$[**] Annual Minimum Royalty for 2011	\$ [**]
To be combined with Invoice 2637 in the amount of \$[**], for years 2012 & 2013	
<b>Total Now Due</b>	<b>\$ [**]</b>

**Please reference Invoice No. 2637-A on your payment.**

Please make checks payable to “California Institute of Technology” and mail payment to:

Fred Farina  
Chief Innovation Officer  
California Institute of Technology  
1200 E. California Boulevard (M/C 6-32)  
Pasadena, CA 91125

For questions about this invoice, please contact:

Lawrence Ingalls, Finance Manager  
Office of Technology Transfer  
(626) 395-2369 or [iti@caltech.edu](mailto:iti@caltech.edu)

Office of Technology Transfer  
California Institute of Technology  
1200 E. California Boulevard (M/C 6-32)  
Pasadena, CA 91125

Phone: (626) 395-8186  
Fax: (626) 356-2486



Confidential Materials omitted and filed separately with the  
Securities and Exchange Commission. Double asterisks denote omissions.

**MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

**TEMPO PHARMACEUTICALS, INC.**

**EXCLUSIVE PATENT LICENSE AGREEMENT**

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**MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
EXCLUSIVE PATENT LICENSE AGREEMENT**

This Agreement, effective as of the date set forth above the signatures of the parties below (the "EFFECTIVE DATE"), is between the Massachusetts Institute of Technology ("M.I.T."), a Massachusetts corporation, with a principal office at 77 Massachusetts Avenue, Cambridge, MA 02139-4307 and Tempo Pharmaceuticals, Inc. ("COMPANY"), a Delaware corporation, with a principal place of business at 61 Rogers Street, Cambridge, Massachusetts.

RECITALS

WHEREAS, M.I.T. is the owner of certain PATENT RIGHTS (as later defined herein) relating invention disclosures and patent applications relating to M.I.T. Case No. [\*\*], and MIT Case [\*\*] and all international counterparts thereto, and has the right to grant licenses under said PATENT RIGHTS;

WHEREAS, Ram Sasisekharan is an inventor of the PATENT RIGHTS and current employee of M.I.T., have or will shortly acquire equity in COMPANY, the Conflict Avoidance Statements of Ram Sasisekharan is attached as Exhibit A hereto;

WHEREAS, Ram Sasisekharan and Shiladitya Sengupta, inventors of the PATENT RIGHTS, have or will shortly acquire equity in COMPANY not resulting from this Agreement, the Inventor/Author Acknowledgments of No Equity Distribution in M.I.T.'s institutional equity share of Ram Sasisekharan and Shiladitya Sengupta are attached as Exhibit B hereto;

WHEREAS, M.I.T.'s Vice President for Research has approved that Ram Sasisekharan and Shiladitya Sengupta, inventors of the PATENT RIGHTS, now hold or shall shortly acquire equity in COMPANY and that M.I.T. is accepting equity as partial consideration for the rights and licenses granted under this Agreement;

WHEREAS, M.I.T. desires to have the PATENT RIGHTS developed and commercialized to benefit the public and is willing to grant a license thereunder;

WHEREAS, COMPANY has represented to M.I.T., to induce M.I.T. to enter into this Agreement, that COMPANY shall commit itself to a diligent program of exploiting the PATENT RIGHTS so that public utilization shall result therefrom; and

WHEREAS, COMPANY desires to obtain a license under the PATENT RIGHTS upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, M.I.T. and COMPANY hereby agree as follows:

1. DEFINITIONS.

1.1. "AFFILIATE" shall mean any legal entity (such as a corporation, partnership, or limited liability company) that is controlled by COMPANY. For the purposes of this definition, the term "control means (i) beneficial ownership of at least fifty percent (50%) of the voting securities of a corporation or other business organization with voting securities or (ii) a fifty percent (50%) or greater interest in the net assets or profits of a partnership or other business organization without voting securities.

1.2. "FIELD" shall mean all human and veterinary therapeutic and diagnostic applications.

1.3. "IMPROVEMENTS" shall mean any patentable invention, or group of patentable inventions so linked as to form a single general inventive concept (as generally inventive concept is described in Rule 13 of the Regulations under the Patent Cooperation Treaty), disclosed to the M.I.T. Technology Licensing Office, made under M.I.T. research programs in which Ram Sasisekharan is the principal investigator, within [\*\*] years from the EFFECTIVE DATE of this Agreement, and which are dominated by the claims of the PATENT RIGHTS, and which shall be practiced by COMPANY only in the FIELD.

1.4. "LICENSED PRODUCT" shall mean any product that, in whole or in part which:

- (i) absent the license granted hereunder, would infringe one or more claims of the PATENT RIGHTS; or
- (ii) is manufactured by using a LICENSED PROCESS or that, when used, practices a LICENSED PROCESS.

1.5. "LICENSED PROCESS" shall mean any process that, absent the license granted hereunder, would infringe one or more claims of the PATENT RIGHTS or which uses a LICENSED PRODUCT.

1.6. "NET SALES" shall mean the gross amount billed by COMPANY and its AFFILIATES and SUBLICENSEES to unaffiliated third parties for LICENSED PRODUCTS and LICENSED PROCESSES, less the following:

(a) customary trade, quantity, or cash discounts to the extent actually allowed and taken;

(b) amounts repaid or credited by reason of rejection or return;

(c) to the extent separately stated on purchase orders, invoices, or other documents of sale, any taxes or other governmental charges levied on the production, sale, transportation, delivery, or use of a LICENSED PRODUCT or LICENSED PROCESS which is paid by or on behalf of COMPANY; and

(d) outbound transportation costs prepaid or allowed and costs of insurance in transit.

No deductions shall be made for commissions paid to individuals whether they be with independent sales agencies or regularly employed by COMPANY and on its payroll, or for cost of collections. NET SALES shall occur on the earlier of receipt of payment or [\*\*] days after the date of billing for a LICENSED PRODUCT or LICENSED PROCESS. Non-monetary consideration for LICENSED PRODUCTS or LICENSED PROCESSES shall be valued at its fair market value.

1.7. "PATENT RIGHTS" shall mean:

(a) the United States and international patents listed on Appendix A;

(b) the United States and international patent applications and/or provisional applications listed on Appendix A and the resulting patents;



(c) any patent applications resulting from the provisional applications listed on Appendix A, and any divisional, continuations, continuation-in-part applications, and continued prosecution applications (and their relevant international equivalents) of the patent applications listed on Appendix A and of such patent applications that result from the provisional applications listed on Appendix A, to the extent the claims are directed to subject matter specifically described in the patent applications listed on Appendix A, and the resulting patents;

(d) any patents resulting from reissues, reexaminations, or extensions (and their relevant international equivalents) of the patents described in (a), (b), and (c) above; and

(e) international (non-United States) patent applications and provisional applications filed after the EFFECTIVE DATE and the relevant international equivalents to divisional, continuations, continuation-in-part applications and continued prosecution applications of the patent applications to the extent the claims are directed to subject matter specifically described in the patents or patent applications referred to in (a), (b), (c), and (d) above, and the resulting patents.

1.8. "REPORTING PERIOD" shall begin on the first day of each calendar quarter and end on the last day of such calendar quarter.

1.9. "SUBLICENSE INCOME" shall mean any payments that COMPANY or an AFFILIATE receives from a SUBLICENSEE in consideration of and attributable to the rights granted COMPANY and AFFILIATES under Section 2.1, including without limitation license fees, milestone payments, license maintenance fees, and other payments, but specifically excluding royalties on NET SALES or payments as a sharing of profits from sales of LICENSED PRODUCTS and LICENSED PROCESSES, research and development funding, reimbursement of costs for patent prosecution and defense, materials and other goods and services and sale of equity at fair market value (with fair market value deemed to be up to [\*\*]% of the value of COMPANY'S common stock at such time as COMPANY'S common stock is publicly traded).

1.10. "SUBLICENSEE" shall mean any non-AFFILIATE sublicensee of one or more of the rights granted COMPANY under Section 2.1.

1.11. "TERM" shall mean the term of this Agreement, which shall commence on the EFFECTIVE DATE and shall remain in effect on a country by country and LICENSED PRODUCT or LICENSED PROCESS by LICENSED PRODUCT or LICENSED PROCESS basis until the expiration or abandonment of all issued patents and filed patent applications within the PATENT RIGHTS, unless earlier terminated in accordance with the provisions of this Agreement.

1.12. "TERRITORY" shall mean worldwide.

## 2. GRANT OF RIGHTS.

2.1. License Grants. Subject to the terms of this Agreement, M.I.T. hereby grants to COMPANY and its AFFILIATES for the TERM an exclusive (subject to Section 2.5) royalty-bearing license under the PATENT RIGHTS to develop, make, have made, use, sell, offer to sell, lease, and import LICENSED PRODUCTS in the FIELD in the TERRITORY and to develop and perform LICENSED PROCESSES in the FIELD in the TERRITORY.

In addition, subject only to the terms of any sponsorship agreement under which an IMPROVEMENT invention was made, M.I.T. hereby grants to COMPANY a first option to add IMPROVEMENTS to the PATENT RIGHTS, only in the FIELD, for [\*\*] months after COMPANY has been notified of the existence of each such IMPROVEMENT. Within [\*\*] after the M.I.T. Technology Licensing Office receives disclosure of any IMPROVEMENT, and to the extent that the IMPROVEMENT is available for licensing under the terms of any sponsorship agreement, M.I.T. shall notify COMPANY in writing of such IMPROVEMENT, furnishing COMPANY a copy of the invention disclosure and any related patent applications. COMPANY may exercise its right to add such IMPROVEMENT to the PATENT RIGHTS within [\*\*] months after receipt of M.I.T.'s notice by so notifying M.I.T. in writing and paying M.I.T. a fee of [\*\*] Dollars (\$[\*\*]) per invention disclosure covering IMPROVEMENTS. Upon COMPANY'S exercise of such right, the Appendix of this Agreement that describes the PATENT RIGHTS that dominate the IMPROVEMENT shall be deemed to have been amended to add the invention disclosure (and any related patent applications) covering such IMPROVEMENT, and such IMPROVEMENT and any resulting patent applications and patents shall thereafter be included in PATENT RIGHTS for all purposes of this Agreement, without any additional fee, other than the

one [\*\*] Dollar fee referred to in the previous sentence, and M.I.T. shall provide COMPANY with an updated Appendix A for its records.

2.2. Exclusivity. In order to establish an exclusive period for COMPANY, M.I.T. agrees that it shall not grant any other license under the PATENT RIGHTS to make, have made, use, sell, lease and import LICENSED PRODUCTS in the FIELD in the TERRITORY or to perform LICENSED PROCESSES in the FIELD in the TERRITORY during the TERM.

2.3. Sublicenses. COMPANY shall have the right to grant sublicenses of its rights under Section 2.1. COMPANY shall incorporate terms and conditions into its sublicense agreements sufficient to enable COMPANY to comply with this Agreement. COMPANY shall promptly furnish M.I.T. with a fully signed photocopy of any sublicense agreement, which may be redacted to preserve confidentiality of the parties thereto. Upon termination of this Agreement for any reason, all sublicenses granted prior to the date of termination shall survive and be assumed by M.I.T. in accordance with Section 12.4 (c)

2.4. U.S. Manufacturing. COMPANY agrees that any LICENSED PRODUCTS used or sold in the United States will be manufactured substantially in the United States to the extent required by applicable laws.

2.5. Retained Rights.

(a) M.I.T. M.I.T. retains the right to practice under the PATENT RIGHTS for research, teaching, and educational purposes.

(b) MIT and COMPANY agree that it will not assert the PATENT RIGHTS against any non-profit entity using the technology for research purposes only, and not for the benefit of any for-profit entity.

(b) Federal Government. COMPANY acknowledges that the U.S. federal government retains a royalty-free, non-exclusive, non-transferable license to practice any government-funded invention claimed in any PATENT RIGHTS as set forth in 35 U.S.C. §§ 201-211, and the regulations promulgated thereunder, as amended, or any successor statutes or regulations.

2.6. No Additional Rights. Nothing in this Agreement shall be construed to confer any rights upon COMPANY by implication, estoppel, or otherwise as to any technology or patent rights of M.I.T. or any other entity other than the PATENT RIGHTS, regardless of whether such technology or patent rights shall be dominant or subordinate to any PATENT RIGHTS.

### 3. COMPANY DILIGENCE OBLIGATIONS.

3.1. Diligence Requirements. COMPANY shall use commercially diligent efforts, or shall cause its AFFILIATES and SUBLICENSEES to use commercially diligent efforts, to develop LICENSED PRODUCTS or LICENSED PROCESSES and to introduce LICENSED PRODUCTS or LICENSED PROCESSES into the commercial market; thereafter, COMPANY or its AFFILIATES or SUBLICENSEES shall make LICENSED PRODUCTS or LICENSED PROCESSES reasonably available to the public. Specifically, COMPANY or AFFILIATE or SUBLICENSEE shall fulfill the following obligations:

(a) Within [\*\*] months after the EFFECTIVE DATE, COMPANY shall furnish M.I.T. with a written research and development plan describing the major tasks to be achieved in order to bring to market a LICENSED PRODUCT or a LICENSED PROCESS, specifying the number of staff and other resources to be devoted to such commercialization effort.

(b) Within [\*\*] days after the end of each calendar year, COMPANY shall furnish M.I.T. with a written report (consistent with Section 5.1(a)) on the progress of its efforts during the immediately preceding calendar year to develop and commercialize LICENSED PRODUCTS or LICENSED PROCESSES. The report shall also contain a discussion of intended efforts and sales projections for the year in which the report is submitted.

(c) COMPANY shall permit an in-plant inspection by M.I.T. on or before [\*\*], and thereafter permit in-plant inspections by M.I.T. at regular intervals with at least [\*\*] months between each such inspection.

(d) COMPANY shall raise at least [\*\*] Dollars (\$[\*\*]) by [\*\*] from the sale of Company's equity securities for its own account or in payments received by COMPANY from product development, technology or commercialization alliances with for-profit third parties.

(e) In the aggregate, COMPANY shall raise at least [\*\*] Dollars (\$[\*\*]) by [\*\*] from the sale of Company's equity securities for its own account or in payments received by COMPANY from product development, technology or commercialization alliances with for-profit third parties.

(f) COMPANY or an AFFILIATE or SUBLICENSEE shall fund no less than [\*\*] Dollars (\$[\*\*]) toward the research, development or commercialization of LICENSED PRODUCTS and/or LICENSED PROCESSES in each calendar year (pro-rated for partial years) beginning in [\*\*] and continuing through the end of [\*\*].

(g) COMPANY or an AFFILIATE or SUBLICENSEE shall fund no less than [\*\*] Dollars (\$[\*\*]) toward the research, development or commercialization of LICENSED PRODUCTS and/or LICENSED PROCESSES in each calendar year (pro-rated for partial years) beginning in [\*\*] and continuing through the end of [\*\*].

(h) COMPANY or an AFFILIATE or SUBLICENSEE shall fund no less than [\*\*] Dollars (\$[\*\*]) toward the research, development or commercialization of LICENSED PRODUCTS and/or LICENSED PROCESSES in each calendar year (pro-rated for partial years) beginning in [\*\*] and ending with the [\*\*].

(i) On or before [\*\*], COMPANY or an AFFILIATE or SUBLICENSEE shall [\*\*].

(j) On or before [\*\*], COMPANY or an AFFILIATE or SUBLICENSEE shall [\*\*].

In the event that COMPANY (or an AFFILIATE or SUBLICENSEE) has failed to fulfill any of its obligations under this Section 3.1 at any time prior to COMPANY raising [\*\*] Dollars (\$[\*\*]) from the sale of COMPANY'S equity securities for its own account or in payments received by COMPANY from product development, technology or commercialization alliances with for-profit third parties (the "Termination Threshold"), MIT may treat such failure as a material breach in accordance with Section 12.3(b). If, following achievement of the Termination Threshold, COMPANY (or an AFFILIATE or SUBLICENSEE) has failed to fulfill any of its obligations under this Section 3.1 and such failure occurs and continues for [\*\*] days following

written notice thereof by M.I.T., M.I.T. may by written notice to COMPANY convert the license granted to COMPANY pursuant to Section 2.1 hereof to a non-exclusive license, and, in such event, Section 2.2 shall have no further effect. Notwithstanding the foregoing, at any time that MIT notifies COMPANY of its finding that COMPANY has failed to fulfill any of its obligations under this Section 3.1, if COMPANY notifies M.I.T. that any such failure was the result of circumstances beyond COMPANY'S reasonable control, then, in lieu of M.I.T.'s right to treat such failure as a material breach or to convert this license to a non-exclusive license in accordance with this Section, M.I.T. and COMPANY shall negotiate in good faith an amendment to COMPANY'S obligations under this Section 3.1. If the parties are unable to negotiate such amendments within [\*\*] days from the date of COMPANY'S notification pursuant to this Section, then M.I.T. may either treat such failure as a material breach (if COMPANY has not raised [\*\*] Dollars) or convert this license to a non-exclusive license in accordance with this Section.

#### 4. ROYALTIES AND PAYMENT TERMS.

##### 4.1. Consideration for Grant of Rights.

(a) License Issue Fee and Patent Cost Reimbursement. COMPANY shall pay to M.I.T. on the EFFECTIVE DATE a license issue fee of Forty Thousand dollars (\$40,000), and, in accordance with Section 6.3, shall reimburse M.I.T. for its actual expenses incurred as of the EFFECTIVE DATE in connection with obtaining the PATENT RIGHTS. These payments are nonrefundable.

(b) License Maintenance Fees. COMPANY shall pay to M.I.T. the following license maintenance fees on the dates set forth below:

January 1, 2008	\$[**]
January 1, 2009	\$[**]
January 1, 2010	\$[**]
January 1, 2011	\$[**]
January 1, 2012	\$[**]
January 1, 2013	\$[**]
January 1, 2014	\$[**]

This annual license maintenance fee is nonrefundable; however, the license maintenance fee may be credited to running royalties subsequently due on NET SALES earned during the same calendar year, if any. License maintenance fees paid in excess of running royalties due in such calendar year shall not be creditable to amounts due for future years.

(c) Running Royalties. COMPANY shall pay to M.I.T. a running royalty of [\*\*] percent ([\*\*]%) of NET SALES by COMPANY, AFFILIATES and SUBLICENSEES

(d) Sharing of SUBLICENSE INCOME. COMPANY shall pay M.I.T. [\*\*] percent ([\*\*]%) of all SUBLICENSE INCOME received by COMPANY or AFFILIATES. Such amount shall be payable for each REPORTING PERIOD in which SUBLICENSE INCOME is received and shall be due to M.I.T. within [\*\*] days of the end of each REPORTING PERIOD.

(e) No Multiple Royalties. If the manufacture, use, lease, or sale of any LICENSED PRODUCT or the performance of any LICENSED PROCESS is covered by more than one of the PATENT RIGHTS, multiple royalties shall not be due.

(f) Equity.

(i) Initial Grant. COMPANY shall issue a total of ( ) shares of Common Stock of COMPANY, \$0.0001 par value per share, (the "Shares") in the name of M.I.T. and of such persons as M.I.T. shall direct ("M.I.T. Holder"), and each M.I.T. Holder shall receive such number of shares as M.I.T. shall direct. Such issuance shall be recorded on the Stock Transfer Ledger of COMPANY on the EFFECTIVE DATE and the Shares shall be delivered to M.I.T. and M.I.T. Holders, if any, within [\*\*] days of the EFFECTIVE DATE.

COMPANY represents to M.I.T. that, as of the Effective Date, the aggregate number of Shares equals Five Percent (5%) of the COMPANY'S issued and outstanding Common Stock calculated on a "Fully Diluted Basis" following the issuance of the Shares. For purposes of this Section 4.1(g), "Fully Diluted Basis" shall mean that the total number of issued and outstanding shares of the COMPANY'S Common Stock shall be calculated to include conversion of all issued and outstanding securities then convertible into common stock, the

exercise of all then outstanding options and warrants to purchase shares of common stock, whether or not then exercisable, and shall assume the issuance or grant of all securities reserved for issuance pursuant to any COMPANY stock or stock option plan in effect on the date of the calculation.

(ii) Anti-Dilution Protection. COMPANY shall issue additional shares of Common Stock to M.I.T. and each M.I.T. Holder pro rata, such that M.I.T.'s and each M.I.T. Holders' ownership of outstanding Common Stock shall not fall below Five Percent (5%) on a Fully Diluted Basis, as calculated after giving effect to the anti-dilutive issuance. Such issuances shall continue until a total of [\*\*] Dollars (\$[\*\*]) in cash in exchange for COMPANY'S capital stock (the "Funding Threshold") shall be received by COMPANY. Thereafter, no additional shares shall be due to M.I.T. or any M.I.T. Holder pursuant to this section. For the avoidance of doubt, if a single COMPANY financing causes COMPANY to reach and exceed more than \$[\*\*] in cumulative funds raised, then the provisions of this Section shall apply with respect to that portion of such financing up to \$[\*\*] and not for that portion of such financing that exceeds such \$[\*\*] threshold.

(iii) Participation in Future Private Equity Offerings. After the date of the Funding Threshold, M.I.T. (specifically not including M.I.T. Holders) shall have the right to purchase additional shares of the COMPANY'S Common Stock in any private offering by the COMPANY of its equity securities in exchange for cash, to maintain its pro rata ownership as calculated immediately prior to such offering on a Fully Diluted Basis, pursuant to the terms and conditions as those granted to the other offerees. All rights granted to M.I.T. pursuant to this Section 4.1(g)(iii) shall terminate immediately prior to a firm commitment underwritten public offering of the COMPANY'S common stock resulting in gross proceeds to the COMPANY of at least \$[\*\*]. M.I.T.'s rights under this Section shall not apply to the following equity securities (i) shares of Common Stock issued or issuable to employees, consultants or directors of COMPANY pursuant to an option plan (including shares issued or issuable upon exercise of options already granted); (ii) securities issued in connection with any stock split or stock dividend by COMPANY; (iii) and shares of Common Stock issued upon conversion of COMPANY Preferred Stock; (iv) securities issued in consideration for the acquisition or licensing of technology or a corporate



partnership transaction or acquisition of another entity; or (v) securities issued in equipment leasing or other debt financing transactions.

(iv) Adjustments for Punitive Round Financings. After the date of the Funding Threshold (the “Funding Threshold Date”) and through the date at which COMPANY has raised a total of [\*\*] Dollars (\$[\*\*]) in cash in exchange for COMPANY stock, if COMPANY issues Common Stock, or any equity security exercisable for or convertible into Common Stock, such that the price per share of COMPANY’S Common Stock is less than the M.I.T. Share Price (as defined below) (a “Dilutive Issuance”), then immediately following such Dilutive Issuance, COMPANY shall issue to M.I.T. shares of Common Stock such that the M.I.T. Share Number (as defined below) equals the product obtained by multiplying the M.I.T. Share Number in effect immediately before the Dilutive Issuance by the Adjustment Fraction defined below. The M.I.T. Share Price in effect immediately after the Dilutive Issuance shall be adjusted to equal the result obtained by dividing the M.I.T. Share Price in effect immediately before the Dilutive Issuance by the Adjustment Fraction defined below.

The Adjustment Fraction equals:  $\frac{(A+C)}{(A+B)}$

where:

A = the number of shares of Common Stock issued and outstanding on a Fully Diluted Basis immediately prior to the Dilutive Issuance

B = the number of shares of Common Stock that could be purchased at the M.I.T. Share Price immediately prior to the Dilutive Issuance using the net aggregate consideration received by COMPANY in connection with the Dilutive Issuance

C = the number of shares of Common Stock or of a security exercisable for or convertible into Common Stock issued, on a Fully Diluted Basis, pursuant to the Dilutive Issuance.

Notwithstanding the foregoing, M.I.T.’s rights under this Section shall not apply to the following equity securities (i) shares of Common Stock issued or issuable to employees, consultants or directors of COMPANY pursuant to an option plan (including shares issued or issuable upon exercise of options already granted); (ii) securities issued in connection with any stock split or stock dividend by COMPANY; (iii) and shares of Common Stock issued upon conversion of

COMPANY Preferred Stock; (iv) securities issued in consideration for the acquisition or licensing of technology or a corporate partnership transaction or acquisition of another entity; or (v) securities issued in equipment leasing or other debt financing transactions.

In addition, the following definitions shall apply to this Section 4.1(f)(iv):

“Fair Market Value” of a share of Common Stock shall be the highest price per share that the COMPANY could obtain from a willing buyer (not a current employee or director) for shares of Common Stock sold by the COMPANY, from authorized but unissued shares, as determined in good faith by the Board of Directors of the COMPANY, unless the COMPANY shall become subject to a merger, acquisition or other consolidation pursuant to which the COMPANY is not the surviving party, in which case the current fair market value of a share of Common Stock shall be deemed to be the value received by the holders of the COMPANY’S Common Stock for each share of Common Stock pursuant to the COMPANY’S acquisition.

“M.I.T. Share Number” shall mean the number of shares of COMPANY’S Common Stock that M.I.T. owns on the date of the Dilutive Issuance, as adjusted from time to time pursuant to this section. Notwithstanding the foregoing, any shares of Common Stock acquired by M.I.T. pursuant to Section 4.1(g)(iii) shall not be included in the M.I.T. Share Number.

“M.I.T. Share Price” shall mean the value per share of the shares of Common Stock included in the M.I.T. Share Number, as adjusted from time to time pursuant to this section. For purposes of this section, the initial M.I.T. Share Price to be used in an adjustment resulting from the first Dilutive Issuance to occur after the Funding Threshold Date shall be the Fair Market Value per share of the Common Stock of the COMPANY effective on the Funding Threshold Date.

#### 4.2. Payments.

(a) Method of Payment. All payments under this Agreement should be made payable to “Massachusetts Institute of Technology” and sent to the address identified in Section 14.1. Each payment should reference this Agreement and identify the obligation under this Agreement that the payment satisfies.

(b) Payments in U.S. Dollars. All payments due under this Agreement shall be drawn on a United States bank and shall be payable in United States dollars. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate existing in the United States (as reported in the Wall Street Journal) on the last working day of the calendar quarter of the applicable REPORTING PERIOD. Such payments shall be without deduction of exchange, collection, or other charges, and, specifically, without deduction of withholding or similar taxes or other government imposed fees or taxes, except as permitted in the definition of NET SALES.

(c) Late Payments. Any payments by COMPANY that are not paid on or before the date such payments are due under this Agreement shall bear interest, to the extent permitted by law, at [\*\*] over the Prime Rate of interest as reported in the Wall Street Journal on the date payment is due.

## 5. REPORTS AND RECORDS.

### 5.1. Frequency of Reports.

(a) Before First Commercial Sale. Prior to the first commercial sale of any LICENSED PRODUCT or first commercial performance of any LICENSED PROCESS, COMPANY shall deliver reports to M.I.T. annually, within [\*\*] days of the end of each calendar year, containing information concerning the immediately preceding calendar year, as further described in Section 5.2.

(b) Upon First Commercial Sale of a LICENSED PRODUCT or Commercial Performance of a LICENSED PROCESS. COMPANY shall report to M.I.T. the date of first commercial sale of a LICENSED PRODUCT and the date of first commercial performance of a LICENSED PROCESS within [\*\*] days of occurrence in each country.

(c) After First Commercial Sale. After the first commercial sale of a LICENSED PRODUCT or first commercial performance of a LICENSED PROCESS, COMPANY shall deliver reports to M.I.T. within [\*\*] days of the end of each REPORTING PERIOD, containing information concerning the immediately preceding REPORTING PERIOD, as further described in Section 5.2.

5.2. Content of Reports and Payments. Each report delivered by COMPANY to M.I.T. shall contain at least the following information for the immediately preceding REPORTING PERIOD:

(i) the number of LICENSED PRODUCTS sold, leased or distributed by COMPANY, its AFFILIATES and SUBLICENSEES to independent third parties in each country, and, if applicable, the number of LICENSED PRODUCTS used by COMPANY, its AFFILIATES and SUBLICENSEES in the provision of services in each country;

(ii) a description of LICENSED PROCESSES performed by COMPANY, its AFFILIATES and SUBLICENSEES in each country as may be pertinent to a royalty accounting hereunder;

(iii) the gross price charged by COMPANY, its AFFILIATES and SUBLICENSEES for each LICENSED PRODUCT and, if applicable, the gross price charged for each LICENSED PRODUCT used to provide services in each country; and the gross price charged for each LICENSED PROCESS performed by COMPANY, its AFFILIATES and SUBLICENSEES in each country;

(iv) calculation of NET SALES for the applicable REPORTING PERIOD in each country, including a listing of applicable deductions;

(v) total royalty payable on NET SALES in U.S. dollars, together with the exchange rates used for conversion;

(vi) the amount of SUBLICENSE INCOME received by COMPANY from each SUBLICENSEE and the amount due to M.I.T. from such SUBLICENSE INCOME, including an itemized breakdown of the sources of income comprising the SUBLICENSE INCOME; and

(vii) the number of sublicenses entered into for the PATENT RIGHTS, LICENSED PRODUCTS and/or LICENSED PROCESSES.

If no amounts are due to M.I.T. for any REPORTING PERIOD, the report shall so state.

5.3. Financial Statements. On or before the [\*\*] day following the close of COMPANY'S fiscal year, COMPANY shall provide M.I.T. with COMPANY'S financial statements for the preceding fiscal year including, at a minimum, a balance sheet and an income statement, certified by COMPANY'S treasurer or chief financial officer or by an independent auditor.

5.4. Records. COMPANY shall maintain, and shall cause its AFFILIATES and SUBLICENSEES to maintain, complete and accurate records relating to the rights and obligations under this Agreement and any amounts payable to M.I.T. in relation to this Agreement, which records shall contain sufficient information to permit M.I.T. to confirm the accuracy of any reports delivered to M.I.T. and compliance in other respects with this Agreement. The relevant party shall retain such records for at least [\*\*] years following the end of the calendar year to which they pertain, during which time M.I.T., or M.I.T.'s appointed agents, shall have the right, at M.I.T.'s expense, to inspect such records during normal business hours not more than [\*\*] period to verify any reports and payments made or compliance in other respects under this Agreement. In the event that any audit performed under this Section reveals an underpayment in excess of [\*\*] percent ([\*\*]%), COMPANY shall bear the full cost of such audit and shall remit any amounts due to M.I.T. within [\*\*] days of receiving notice thereof from M.I.T.

5.5. Confidential Information. The information in the reports and records provided by COMPANY to M.I.T. pursuant to Sections 5.1 through 5.4 of this Agreement and in the sublicense agreements provided to M.I.T. under Section 2.3 shall be considered "Confidential Information", provided that such information is specifically designated in writing as confidential. M.I.T. shall maintain the Confidential Information in strict confidence, unless, the information (i) was in the public domain prior to the time of its disclosure under this Agreement; (ii) entered the public domain after the time of its disclosure under this Agreement through means other than an unauthorized disclosure resulting from an act or omission by M.I.T.; (iii) was independently developed or discovered by M.I.T. without use of the Confidential Information; (iv) is or was disclosed to M.I.T. at any time, whether prior to or after the time of its disclosure under this Agreement, by a third party having no fiduciary relationship with COMPANY and having no obligation of confidentiality with respect to such Confidential Information; or (v) is required to be disclosed to comply with applicable laws or regulations, or with a court or administrative order.

## 6. PATENT PROSECUTION.

6.1. Responsibility for PATENT RIGHTS. M.I.T. shall prepare, file, prosecute, and maintain all of the PATENT RIGHTS. COMPANY shall have reasonable opportunities to advise M.I.T. and shall cooperate with M.I.T. in such filing, prosecution and maintenance. COMPANY shall have reasonable opportunities to advise M.I.T. and shall cooperate with M.I.T. in such preparation, filing, prosecution and maintenance. M.I.T. will instruct its patent attorney to copy COMPANY on all patent prosecution documents relating to PATENT RIGHTS during the TERM.

6.2. International (non-United States) Filings. Appendix B is a list of countries in which patent applications corresponding to the United States patent applications listed in Appendix A shall be filed, prosecuted, and maintained. Appendix B may be amended by mutual agreement of COMPANY and MIT. MIT shall not unreasonably withhold its consent to amendment of Appendix B requested by COMPANY.

6.3. Abandoning Patent Rights. Should M.I.T. elect to abandon any PATENT RIGHTS, M.I.T. will first notify COMPANY of its intent to do so sufficiently in advance for COMPANY to continue prosecution and maintain of such PATENT RIGHTS, and COMPANY may prosecute and maintain such PATENT RIGHTS in M.I.T.'s name at COMPANY'S own expense.

6.4. Payment of Expenses. Payment of all fees and costs, including attorneys' fees, relating to the filing, prosecution and maintenance of the PATENT RIGHTS shall be the responsibility of COMPANY, whether such amounts were incurred before or after the EFFECTIVE DATE. As of [\*\*], M.I.T. has incurred approximately \$[\*\*] for such patent-related fees and costs. COMPANY shall reimburse all amounts due pursuant to this Section within [\*\*] days of invoicing; late payments shall accrue interest pursuant to Section 4.2(c). In all instances, M.I.T. shall pay the fees prescribed for large entities to the United States Patent and Trademark Office.

## 7. INFRINGEMENT.

7.1. Notification of Infringement. Each party agrees to provide written notice to the other party promptly after becoming aware of any infringement of the PATENT RIGHTS.

7.2. Right to Prosecute Infringements.

(a) COMPANY Right to Prosecute. So long as COMPANY remains the exclusive licensee of the PATENT RIGHTS in the FIELD in the TERRITORY, COMPANY, to the extent permitted by law, shall have the right, under its own control and at its own expense, to prosecute any third party infringement of the PATENT RIGHTS in the FIELD in the TERRITORY, subject to Sections 7.4 and 7.5. If required by law, M.I.T. shall permit any action under this Section to be brought in its name, including being joined as a party-plaintiff, provided that COMPANY shall hold M.I.T. harmless from, and indemnify M.I.T. against, any costs, expenses, or liability that M.I.T. incurs in connection with such action.

Prior to commencing any such action, COMPANY shall consult with M.I.T. and shall consider the views of M.I.T. regarding the advisability of the proposed action and its effect on the public interest. COMPANY shall not enter into any settlement, consent judgment, or other voluntary final disposition of any infringement action under this Section without the prior written consent of M.I.T., not to be unreasonably withheld.

(b) M.I.T. Right to Prosecute. In the event that COMPANY is unsuccessful in persuading the alleged infringer to desist or fails to have initiated an infringement action within [\*\*] days after COMPANY first becomes aware of the basis for such action, M.I.T. shall have the right, at its sole discretion, to prosecute such infringement under its sole control and at its sole expense, and any recovery obtained shall belong to M.I.T. If required by law, COMPANY hereby agrees that M.I.T. may include COMPANY as a party-plaintiff in any such suit, without expense to COMPANY. Prior to commencing any such action, M.I.T. shall consult with COMPANY and shall consider the views of COMPANY regarding the advisability of the proposed action. Further, M.I.T. shall not enter into any settlement, consent judgment, or other voluntary final disposition of any infringement action under this Section without first consulting with and considering the views of COMPANY. Notwithstanding the forgoing, any action taken under this Section shall be at the sole discretion of M.I.T.

7.3. Declaratory Judgment Actions. In the event that a declaratory judgment action is brought against M.I.T. or COMPANY by a third party alleging invalidity, unenforceability, or non-infringement of the PATENT RIGHTS, COMPANY, at its option, shall have the right within

[\*\*] days after commencement of such action to take over the sole defense of the action at its own expense. If COMPANY does not exercise this right, M.I.T. may take over the sole defense of the action at M.I.T.'s sole expense, subject to Sections 7.4 and 7.5.

7.4. Offsets. COMPANY may offset a total of [\*\*] percent ([\*\*]%) of any expenses incurred under Sections 7.2 and 7.3 against any payments due to M.I.T. under Sections 4.1(b) and 4.1(d); provided that, in no event shall such payments under Sections 4.1 (b) and 4.1 (d) be reduced by more than [\*\*] percent ([\*\*]%) in any REPORTING PERIOD, it being understood that any expenses which COMPANY is prevented by the foregoing provision from offsetting in any REPORTING PERIOD may be carried forward and offset in one or more subsequent REPORTING PERIODS (applying the foregoing proviso in each subsequent REPORTING PERIOD).

7.5. Recovery. Any recovery obtained in an action brought by COMPANY under Sections 7.2 or 7.3 shall be distributed as follows: (i) each party shall be reimbursed for any expenses incurred in the action, (ii) all remaining recoveries received in any such action shall be retained by COMPANY and deemed lost profits by COMPANY, as a result of which M.I.T. shall be entitled to receive royalties equal to the royalty rate set forth in Section 4.1(c) applied to such remaining recovery multiplied by [\*\*].

7.6. Cooperation. Each party agrees to cooperate in any action under this Article which is controlled by the other party, provided that the controlling party reimburses the cooperating party promptly for any costs and expenses incurred by the cooperating party in connection with providing such assistance.

## 8. INDEMNIFICATION AND INSURANCE

### 8.1. Indemnification.

(a) Indemnity. COMPANY shall indemnify, defend, and hold harmless M.I.T. and its trustees, officers, faculty, students, employees, and agents and their respective successors, heirs and assigns (the "Indemnitees"), against any liability, damage, loss, or expense (including reasonable attorney's fees and expenses) (collectively, "Losses") incurred by or imposed upon any of the Indemnitees in connection with any claims, suits, actions, demands or judgments arising out



of any theory of liability (including without limitation actions in the form of tort, warranty, or strict liability and regardless of whether such action has any factual basis) concerning any product, process, or service that is made, used, sold, imported, or performed pursuant to any right or license granted under this Agreement; provided, however that COMPANY shall have no obligation pursuant to the foregoing with respect to any Losses that result from the gross negligence or willful misconduct of any Indemnitee.

(b) Procedures. The Indemnitees agree to provide COMPANY with prompt written notice of any claim, suit, action, demand, or judgment for which indemnification is sought under this Agreement. COMPANY agrees, at its own expense, to provide attorneys reasonably acceptable to M.I.T. to defend against any such claim. The Indemnitees shall cooperate fully with COMPANY in such defense and will permit COMPANY to conduct and control such defense and the disposition of such claim, suit, or action (including all decisions relative to litigation, appeal, and settlement); provided, however, that any Indemnitee shall have the right to retain its own counsel, at the expense of COMPANY, if representation of such Indemnitee by the counsel retained by COMPANY would be inappropriate because of actual or potential differences in the interests of such Indemnitee and any other party represented by such counsel. COMPANY agrees to keep M.I.T. informed of the progress in the defense and disposition of such claim and to consult with M.I.T. with regard to any proposed settlement.

8.2. Insurance. Before the first human use of a LICENSED PRODUCT or LICENSED PROCESS, COMPANY shall obtain and carry in full force and effect commercial general liability insurance, including product liability insurance which shall protect COMPANY and Indemnitees with respect to events covered by Section 8.1(a) above. Such insurance (i) shall be issued by an insurer licensed to practice in the Commonwealth of Massachusetts or an insurer pre-approved by M.I.T., such approval not to be unreasonably withheld, (ii) shall list M.I.T. as an additional insured thereunder, (iii) shall be endorsed to include product liability coverage, and (iv) shall require [\*\*] days written notice to be given to M.I.T. prior to any cancellation or material change thereof. The limits of such insurance shall not be less than [\*\*] Dollars (\$[\*\*]) per occurrence with an aggregate of [\*\*] Dollars (\$[\*\*]) for bodily injury including death; and [\*\*] Dollars (\$[\*\*]) per occurrence with an aggregate of [\*\*] Dollars (\$[\*\*]) for property damage. In the alternative, COMPANY may self-insure subject to prior approval of M.I.T. COMPANY shall provide M.I.T.

with Certificates of Insurance evidencing compliance with this Section. COMPANY shall continue to maintain such insurance or self-insurance after the expiration or termination of this Agreement during any period in which COMPANY or any AFFILIATE or SUBLICENSEE continues (i) to make, use, or sell a product that was a LICENSED PRODUCT under this Agreement or (ii) to perform a service that was a LICENSED PROCESS under this Agreement, and thereafter for a period of [\*\*] years.

#### 9. NO REPRESENTATIONS OR WARRANTIES

M.I.T. hereby represents and warrants to COMPANY that, to the best of its knowledge, M.I.T. is the owner of the entire right, title and interest in the PATENT RIGHTS and in the inventions described and claimed therein and has the right to grant the licenses granted herein. M.I.T. has not granted to any third party any right or interest in the PATENT RIGHTS inconsistent or in conflict with the rights granted to COMPANY hereunder. MIT's entire liability under this representation and warranty is limited to the amounts paid to MIT under this Agreement.

EXCEPT AS MAY OTHERWISE BE EXPRESSLY SET FORTH IN THIS AGREEMENT, M.I.T. MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE PATENT RIGHTS, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, VALIDITY OF PATENT RIGHTS CLAIMS, WHETHER ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE. Specifically, and not to limit the foregoing, M.I.T. makes no warranty or representation (i) regarding the validity or scope of the PATENT RIGHTS, and (ii) that the exploitation of the PATENT RIGHTS or any LICENSED PRODUCT or LICENSED PROCESS will not infringe any patents or other intellectual property rights of M.I.T. or of a third party.

IN NO EVENT SHALL M.I.T, ITS TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES AND AFFILIATES BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGES OR INJURY TO PROPERTY AND LOST PROFITS, REGARDLESS OF WHETHER M.I.T. SHALL BE

10. ASSIGNMENT

This Agreement is personal to COMPANY and no rights or obligations may be assigned by COMPANY without the prior written consent of M.I.T., except that COMPANY may assign its rights and obligations under this Agreement without the consent of M.I.T. in connection with any sale of all or substantially all of the shares or assets of COMPANY or the assets of COMPANY to which this Agreement relates or in connection with any merger, consolidation, reorganization or similar business combination or change of control of COMPANY.

11. GENERAL COMPLIANCE WITH LAWS

11.1. Compliance with Laws. COMPANY shall use reasonable commercial efforts to comply with all commercially material local, state, federal, and international laws and regulations relating to the development, manufacture, use, and sale of LICENSED PRODUCTS and LICENSED PROCESSES.

11.2. Export Control. COMPANY and its AFFILIATES and SUBLICENSEES shall comply with all United States laws and regulations controlling the export of certain commodities and technical data, including without limitation all Export Administration Regulations of the United States Department of Commerce. Among other things, these laws and regulations prohibit or require a license for the export of certain types of commodities and technical data to specified countries. COMPANY hereby gives written assurance that it will comply with, and will cause its AFFILIATES and SUBLICENSEES to comply with, all United States export control laws and regulations, that it bears sole responsibility for any violation of such laws and regulations by itself or its AFFILIATES or SUBLICENSEES, and that it will indemnify, defend, and hold M.I.T. harmless (in accordance with Section 8.1) for the consequences of any such violation.

11.3. Non-Use of M.I.T. Name. COMPANY and its AFFILIATES and SUBLICENSEES shall not use the name of “Massachusetts Institute of Technology” or any variation, adaptation, or abbreviation thereof, or of any of its trustees, officers, faculty, students, employees, or agents, or any trademark owned by M.I.T, or any terms of this Agreement in any

promotional material or other public announcement or disclosure without the prior written consent of M.I.T. The foregoing notwithstanding, without the consent of M.I.T, COMPANY may state that it is licensed by M.I.T. under one or more of the patents and/or patent applications comprising the PATENT RIGHTS.

11.4. Marking of LICENSED PRODUCTS. To the extent commercially feasible and consistent with prevailing business practices, COMPANY shall mark, and shall cause its AFFILIATES and SUBLICENSEES to mark, all LICENSED PRODUCTS that are manufactured or sold under this Agreement with the number of each issued patent under the PATENT RIGHTS that applies to such LICENSED PRODUCT.

## 12. TERMINATION

12.1. Voluntary Termination by COMPANY. COMPANY shall have the right to terminate this Agreement, for any reason, (i) upon at least six (6) months prior written notice to M.I.T, such notice to state the date at least six (6) months in the future upon which termination is to be effective, and (ii) upon payment of all amounts due to M.I.T. through such termination effective date.

12.2. Cessation of Business. If COMPANY ceases to carry on its business related to this Agreement, M.I.T. shall have the right to terminate this Agreement immediately upon written notice to COMPANY.

### 12.3. Termination for Default.

(a) Nonpayment. In the event COMPANY fails to pay any amounts due and payable to M.I.T. hereunder, and fails to make such payments within [\*\*] days after receiving written notice of such failure, M.I.T. may terminate this Agreement immediately upon written notice to COMPANY.

(b) Material Breach. In the event COMPANY commits a material breach of its obligations under this Agreement, except for a breach of Section 3.1 occurring after the Termination Threshold has been met (as defined in such Section) or a breach as described in

Section 12.3(a), and fails to cure that breach within [\*\*] days after receiving written notice thereof, M.I.T. may terminate this Agreement immediately upon written notice to COMPANY.

12.4. Effect of Termination.

(a) Survival. The following provisions shall survive the expiration or termination of this Agreement: Articles 1, 8, 9, 13 and 14, and Sections 4.1(g), 5.2 (obligation to provide final report and payment), 5.4, 11.1, 11.2 and 12.4.

(b) Inventory. Upon the early termination of this Agreement, COMPANY and its AFFILIATES and SUBLICENSEES may complete and sell any work-in-progress and inventory of LICENSED PRODUCTS that exist as of the effective date of termination, provided that (i) COMPANY pays M.I.T. the applicable running royalty or other amounts due on such sales of LICENSED PRODUCTS in accordance with the terms and conditions of this Agreement, and (ii) COMPANY and its AFFILIATES and SUBLICENSEES shall complete and sell all work-in-progress and inventory of LICENSED PRODUCTS within [\*\*] months after the effective date of termination.

(c) Survival of Sublicenses. Upon termination of this Agreement for any reason, all sublicenses granted by COMPANY that are in effect at the time of such termination shall survive such termination and be assumed by M.I.T. in accordance with their terms; provided that, M.I.T. shall not, in connection with such assumption, be required to assume any obligations that are greater than those contained in this Agreement and each such sublicense agrees in writing to continue to be bound by the terms of the applicable sublicense as assumed by M.I.T.

(d) Pre-termination Obligations. In no event shall termination of this Agreement release COMPANY, AFFILIATES, or SUBLICENSEES from the obligation to pay any amounts that became due on or before the effective date of termination.

13. DISPUTE RESOLUTION.

13.1. Mandatory Procedures. The parties agree that any dispute arising out of or relating to this Agreement shall be resolved solely by means of the procedures set forth in this Article, and that such procedures constitute legally binding obligations that are an essential provision of this

Agreement. If either party fails to observe the procedures of this Article, as may be modified by their written agreement, the other party may bring an action for specific performance of these procedures in any court of competent jurisdiction.

13.2. Equitable Remedies. Although the procedures specified in this Article are the sole and exclusive procedures for the resolution of disputes arising out of or relating to this Agreement, either party may seek a preliminary injunction or other provisional equitable relief if, in its reasonable judgment, such action is necessary to avoid irreparable harm to itself or to preserve its rights under this Agreement.

13.3. Dispute Resolution Procedures.

(a) Mediation. In the event any dispute arising out of or relating to this Agreement remains unresolved within [\*\*] days from the date the affected party informed the other party of such dispute, either party may initiate mediation upon written notice to the other party (“Notice Date”), whereupon both parties shall be obligated to engage in a mediation proceeding under the then current Center for Public Resources (“CPR”) Model Procedure for Mediation of Business Disputes (<http://www.cpradr.org>), except that specific provisions of this Article shall override inconsistent provisions of the CPR Model Procedure. The mediator will be selected from the CPR Panels of Neutrals. If the parties cannot agree upon the selection of a mediator within [\*\*] business days after the Notice Date, then upon the request of either party, the CPR shall appoint the mediator. The parties shall attempt to resolve the dispute through mediation until the first of the following occurs: (i) the parties reach a written settlement; (ii) the mediator notifies the parties in writing that they have reached an impasse; (iii) the parties agree in writing that they have reached an impasse; or (iv) the parties have not reached a settlement within [\*\*] days after the Notice Date.

(b) Trial Without Jury. If the parties fail to resolve the dispute through mediation, or if neither party elects to initiate mediation, each party shall have the right to pursue any other remedies legally available to resolve the dispute, provided, however, that the parties expressly waive any right to a jury trial in any legal proceeding under this Article.

13.4. Performance to Continue. Each party shall continue to perform its undisputed obligations under this Agreement pending final resolution of any dispute arising out of or relating to this Agreement; provided, however, that a party may suspend performance of its undisputed obligations during any period in which the other party fails or refuses to perform its undisputed obligations. Nothing in this Article is intended to relieve COMPANY from its obligation to make undisputed payments pursuant to Articles 4 and 6 of this Agreement.

13.5. Statute of Limitations. The parties agree that all applicable statutes of limitation and time-based defenses (such as estoppel and laches) shall be tolled while the procedures set forth in Sections 13.3(a) are pending. The parties shall cooperate in taking any actions necessary to achieve this result.

#### 14. MISCELLANEOUS.

14.1. Notice. Any notices required or permitted under this Agreement shall be in writing, shall specifically refer to this Agreement, and shall be sent by hand, recognized national overnight courier, confirmed facsimile transmission, confirmed electronic mail, or registered or certified mail, postage prepaid, return receipt requested, to the following addresses or facsimile numbers of the parties:

If to M.I.T, all matters relating to the license:

Massachusetts Institute of Technology  
Technology Licensing Office, RmNE25-230  
Five Cambridge Center, Kendall Square  
Cambridge, MA 02142-1493  
Attention: Director  
Tel: 617-253-6966  
Fax: 617-258-6790

If to M.I.T, relating to any equity action after the initial issuance of shares:

Massachusetts Institute of Technology  
Treasurer's Office  
238 Main Street  
Cambridge, MA 02142  
Attention: Philip Rotner

Tel: 617-253-5422  
Fax: 617-258-6676

If to COMPANY:

Tempo Pharmaceuticals, Inc.  
61 Rogers Street  
Cambridge, MA 02141  
Attn: Chief Executive Officer  
Tel:  
Fax:

With a copy to:

Ropes & Gray LLP  
One International Place  
Boston, Massachusetts 02110  
Attention: Marc A. Rubenstein  
Tel: 617-951-7000  
Fax: 617-951-7050

All notices under this Agreement shall be deemed effective upon receipt. A party may change its contact information immediately upon written notice to the other party in the manner provided in this Section.

14.2. Governing Law. This Agreement and all disputes arising out of or related to this Agreement, or the performance, enforcement, breach or termination hereof, and any remedies relating thereto, shall be construed, governed, interpreted and applied in accordance with the laws of the Commonwealth of Massachusetts, U.S.A., without regard to conflict of laws principles, except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent shall have been granted.

14.3. Force Majeure. Neither party will be responsible for delays resulting from causes beyond the reasonable control of such party, including without limitation fire, explosion, flood, war, strike, or riot, provided that the nonperforming party uses commercially reasonable efforts to avoid or remove such causes of nonperformance and continues performance under this Agreement with reasonable dispatch whenever such causes are removed.



14.4. Amendment and Waiver. This Agreement may be amended, supplemented, or otherwise modified only by means of a written instrument signed by both parties. Any waiver of any rights or failure to act in a specific instance shall relate only to such instance and shall not be construed as an agreement to waive any rights or fail to act in any other instance, whether or not similar.

14.5. Severability. In the event that any provision of this Agreement shall be held invalid or unenforceable for any reason, such invalidity or unenforceability shall not affect any other provision of this Agreement, and the parties shall negotiate in good faith to modify the Agreement to preserve (to the extent possible) their original intent. If the parties fail to reach a modified agreement within [\*\*] days after the relevant provision is held invalid or unenforceable, then the dispute shall be resolved in accordance with the procedures set forth in Article 13. While the dispute is pending resolution, this Agreement shall be construed as if such provision were deleted by agreement of the parties.

14.6. Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties and their respective permitted successors and assigns.

14.7. Headings. All headings are for convenience only and shall not affect the meaning of any provision of this Agreement.

14.8. Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to its subject matter and supersedes all prior agreements or understandings between the parties relating to its subject matter.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives.

**The EFFECTIVE DATE of this Agreement is December 21, 2006.**

MASSACHUSETTS INSTITUTE OF INC. TECHNOLOGY

By: /s/ Lita L. Nelsen

TEMPO PHARMACEUTICALS,

By: /s/ Alan Crane

Name: Lita L. Nelsen, Director

Name: Alan Crane

Title: Technology Licensing Office

Title: President & CEO

MASSACHUSETTS INSTITUTE OF INC. TECHNOLOGY

By: /s/ Claude R. Canizares

Name: Claude R. Canizares, Ph.D.

Title: Bruno Rossi Professor of Experimental Physics,  
Vice President for Research, and  
Associate Provost

APPENDIX A  
List of Patent Applications and Patents

I. United States Patents and Applications

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II. International (non-U. S.) Patents and Applications

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APPENDIX B

List of Countries (excluding United States) for which  
PATENT RIGHTS Applications Will Be Filed, Prosecuted and Maintained

[PLEASE ADVISE]

EXHIBIT A

CONFLICT AVOIDANCE STATEMENT

Name: Ram Sasisekharan  
Dept. or Lab.: Biological Engineering  
Company: Tempo Pharmaceuticals  
Address: Cambridge, MA

Licensed Technology: M.I.T. Case No. [\*\*]; M.I.T; Case No. [\*\*]

Because of the M.I.T. license granted to the above company and my equity\* position and continuing relationship with this company, I acknowledge the potential for a possible conflict of interest between the performance of research at M.I.T. and my contractual or other obligations to this company. Therefore, I will not

- 1) use students at M.I.T, for research and development projects for the company;
- 2) restrict or delay access to information from my M.I.T research;
- 3) take direct or indirect research support from the company in order to support my activities at M.I.T; or
- 4) employ students at the company, except in accordance with Section 4.5.2, "Faculty and Students," in the Policies and Procedures Guide.

In addition, in order to avoid the appearance of a conflict, I will attempt to differentiate clearly between the intellectual directions of my M.I.T. research and my contributions to the company. To that end, I will expressly inform my department head/laboratory director annually of the general nature of my activities on behalf of the company

Signed: /s/ Ram Sasisekharan  
Date: Dec. 18th 2006

Approved by: /s/Douglas Lauttenburger  
Name (print): Douglas Lattenburger  
(Dept. Head or Lab Dir)

\* "Equity" includes stock, options, warrants or other financial instruments convertible into stock, which are directly or indirectly controlled by the inventor.

Conf Avoid Stmt  
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EXHIBIT B

INVENTOR/AUTHOR ACKNOWLEDGMENT OF  
NO EQUITY DISTRIBUTION  
*Form Version 8/22/01*

In partial reliance on the undersigned's execution of this Acknowledgment, M.I.T. has entered into the license agreement to which this Acknowledgment is attached (the "LICENSE") in which COMPANY received certain licenses to the technology listed below, on some or all of which the undersigned is a listed inventor or author. The undersigned, independently of the LICENSE, has received or will soon acquire equity in Tempo Pharmaceuticals, Inc. ("COMPANY"), and, in accordance with M.I.T.'s licensing policies contained in M.I.T.'s *Guide to the Ownership, Distribution and Commercial Development of M.I.T. Technology*, as that policy may be amended from time to time (specifically §4.2.5 as of this Form Version date), the undersigned, on his/her own behalf and on behalf of his/her heirs and assigns, acknowledges and agrees that he/she has no right to receive any share of equity income received by M.I.T. in consideration for the LICENSE.

Technology Licensed as of the EFFECTIVE DATE of the LICENSE:

M.I.T. Case No. [\*\*]

M.I.T. Case No. [\*\*]

Witness: /s/ Ada M. Ziolkowski  
Ada M. Ziolkowski

Signed: /s/ Ram Sasisekharan  
Print Name: Ram Sasiekhara  
Date: 20<sup>th</sup> Dec. '06

EXHIBIT B

INVENTOR/AUTHOR ACKNOWLEDGMENT  
OF NO EQUITY DISTRIBUTION

In partial reliance on the undersigned's execution of this Acknowledgment, M.I.T. has entered into the license agreement to which this Acknowledgment is attached (the "LICENSE") in which COMPANY received certain licenses to the technology listed below, on some or all of which the undersigned is a listed inventor or author. The undersigned, independently of the LICENSE, has received or will soon acquire equity in Tempo Pharmaceuticals, Inc. ("COMPANY"), and, in accordance with M.I.T.'s licensing policies contained in M.I.T.'s *Guide to the Ownership, Distribution and Commercial Development of M.I.T. Technology*, as that policy may be amended from time to time (specifically §4.2.5 as of this Form Version date), the undersigned, on his/her own behalf and on behalf of his/her heirs and assigns, acknowledges and agrees that he/she has no right to receive any share of equity income received by M.I.T. in consideration for the LICENSE.

Technology Licensed as of the EFFECTIVE DATE of the LICENSE:

M.I.T. Case No. [\*\*]

M.I.T. Case No. [\*\*].

Witness: /s/ illegible

Signed: /s/ Shiladitya Senuupta

Print Name: Shiladitya Senuupta

Date: 20th Dec. '06



**FIRST AMENDMENT**

This First Amendment, effective as of the date set forth above the signatures of the parties below, is between the Massachusetts Institute of Technology, a Massachusetts corporation having its principal office at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 (“M.I.T.”), and Tempo Pharmaceuticals, Inc., a Delaware corporation having its principal place of business at 61 Rogers Street, Cambridge, Massachusetts 02142 (“COMPANY”).

WHEREAS, COMPANY and M.I.T. wish to modify the provisions of the Exclusive Patent License Agreement dated December 21, 2006 (the “LICENSE AGREEMENT”); and

WHEREAS, M.I.T. is the owner of certain technology identified as M.I.T. Case No. [\*\*];

WHEREAS, the platinum based prodrugs of M.I.T. Case No. [\*\*] may be delivered using particle based delivery technology licensed by M.I.T. to COMPANY under the LICENSE AGREEMENT (the “NANOCELL PATENT RIGHTS”); and

WHEREAS, COMPANY and M.I.T. wish to amend the LICENSE AGREEMENT to include patent rights for M.I.T. Case No. [\*\*] (the “PLATINUM PRODRUG PATENT RIGHTS”) upon the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the promises and mutual covenants contained herein, the parties hereby agree as follows:

1. Appendix A of the LICENSE AGREEMENT shall be amended to read in its entirety as follows:

APPENDIX A  
List of Patent Applications and Patents

**(I) NANOCELL PATENT RIGHTS**

(a) United States Patents and Applications

M.I.T. Case No. [\*\*]

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M.I.T. Case No. [\*\*]

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(b) International (non-U.S.) Patents and Applications

M.I.T. Case No. [\*\*]

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M.I.T. Case No. [\*\*]

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**(II) PLATINUM PRODRUG PATENT RIGHTS**

“M.I.T. Case No. [\*\*]

2. Section 1.3. IMPROVEMENTS, of the LICENSE AGREEMENT shall be amended to read in its entirety as follows:

“IMPROVEMENTS” shall mean any patentable invention, or group of patentable inventions so linked as to form a single general inventive concept (as generally inventive concept is described in Rule 13 of the Regulations under the Patent Cooperation Treaty), disclosed to the M.I.T. Technology Licensing Office, made under M.I.T. research programs in which Ram Sasisekharan is the principal investigator, within [\*\*] years from the EFFECTIVE DATE of this Agreement, and which are dominated by the claims of the NANOCELL PATENT RIGHTS, and which shall be practiced by COMPANY only in the FIELD.

3. The following new sentence shall be added to the end of Section 1.7, PATENT RIGHTS, of the LICENSE AGREEMENT.

For clarification, the PATENT RIGHTS include the NANOCELL PATENT RIGHTS set forth in APPENDIX A (I) and the PLATINUM PRODRUG PATENT RIGHTS set forth in APPENDIX A (II).

4. The following new definitions shall be added to Article I, DEFINITIONS, of the LICENSE AGREEMENT as Sections 1.13, 1.14 and 1.15:

1.13 “NANOCELL FIELD” shall mean the treatment of human and veterinary disease using a pharmaceutical composition which, or the use or manufacture of which, is described as the invention or claimed in [\*\*].

1.14 “NANOCELL PATENT RIGHTS” shall mean any and all PATENT RIGHTS based on M.I.T. Case No. [\*\*] and/or M.I.T. Case No. [\*\*], as set forth in APPENDIX A (I).

1.15 “PLATINUM PRODRUG PATENT RIGHTS” shall mean any and all PATENT RIGHTS based on M.I.T. Case No. [\*\*], as set forth in APPENDIX A (II).

5. The first paragraph of Section 2.1, License Grants, of the LICENSE AGREEMENT shall be amended to read in its entirety as follows:

License Grants. Subject to the terms of this Agreement, M.I.T. hereby grants to COMPANY and its AFFILIATES for the TERM: (a) an exclusive (subject to Section 2.5) royalty-bearing license under the NANOCELL PATENT RIGHTS to develop, make, have made, use, sell, offer to sell, lease and import LICENSED PRODUCTS in the FIELD in the TERRITORY and to develop and perform LICENSED PROCESSES in the FIELD in the TERRITORY; and (b) an exclusive (subject to Section 2.5) royalty-bearing license under the PLATINUM PRODRUG PATENT RIGHTS to develop, make, have made, use, sell, offer to sell, lease and import LICENSED PRODUCTS solely in the NANOCELL FIELD in the TERRITORY. For clarification, M.I.T. and COMPANY acknowledge that the license grant under the PLATINUM PRODRUG PATENT RIGHTS is solely the right for COMPANY and its AFFILIATES to deliver such platinum prodrugs using a pharmaceutical composition which, or the use or manufacture of which, is described as the invention or claimed in [\*\*].

6. The first sentence of the second paragraph of Section 2.1, License Grants, of the LICENSE AGREEMENT shall be amended to read in its entirety as follows:

In addition, subject only to the terms of any sponsorship agreement under which an IMPROVEMENT invention was made, M.I.T. hereby grants to COMPANY a first option to add IMPROVEMENTS to the NANOCELL PATENT RIGHTS, only in the FIELD, for [\*\*] months after COMPANY has been notified of the existence of each such IMPROVEMENT.

7. Section 2.2, Exclusivity, of the LICENSE AGREEMENT shall be amended to read in its entirety as follows:

Exclusivity. In order to establish an exclusive period for COMPANY, M.I.T. agrees that: (a) it shall not grant any other license under the NANOCELL PATENT RIGHTS to make, have made, use, sell, lease and import LICENSED PRODUCTS in the FIELD in the TERRITORY or to perform LICENSED PROCESSES in the FIELD in the TERRITORY during the TERM; and (b) it shall not grant any other license under the PLATINUM PRODRUG PATENT RIGHTS to make, have made, use, sell, lease and import LICENSED PRODUCTS in the NANOCELL FIELD in the TERRITORY during the TERM.

8. As consideration for this amendment to the LICENSE AGREEMENT, COMPANY shall pay to M.I.T. a [\*\*] Dollar (\$[\*\*]) fee upon execution of the amendment. This payment is non-refundable.

9. COMPANY shall reimburse M.I.T. for all patent costs incurred by M.I.T. for the PLATINUM PRODRUG PATENT RIGHTS in accordance with Article 6 of the LICENSE AGREEMENT, provided that, in the event that M.I.T. exclusively licenses any of the PLATINUM PRODRUG PATENT RIGHTS to one or more third parties outside the NANOCELL FIELD, M.I.T. shall notify COMPANY in writing and thereupon future patent costs associated with the PLATINUM PRODRUG PATENT RIGHTS shall be allocated on a pro rata basis between COMPANY and such third party(ies). COMPANY'S pro rata share of patent costs will decrease on a going forward basis only, and no credits shall be allowed for past payments due prior to each new license.

10. The first paragraph of Section 7.2(a), COMPANY Right to Prosecute, of the LICENSE AGREEMENT shall be amended to read in its entirety as follows:

COMPANY Right to Prosecute. So long as COMPANY remains the exclusive licensee of the NANOCELL PATENT RIGHTS in the FIELD in the TERRITORY, COMPANY, to the extent permitted by law, shall have the right, under its own control and at its own expense, to prosecute any third party infringement of the NANOCELL PATENT RIGHTS in the FIELD in the TERRITORY, subject to Sections 7.4 and 7.5. In addition, so long as COMPANY remains the exclusive licensee of the PLATINUM PRODRUG PATENT RIGHTS

in the NANOCELL FIELD in the TERRITORY, COMPANY, to the extent permitted by law, shall have the right, under its own control and at its own expense, to prosecute any third party infringement of the PLATINUM PRODRUG PATENT RIGHTS in the NANOCELL FIELD in the TERRITORY, subject to Sections 7.4 and 7.5. If required by law, M.I.T. shall permit any action under this Section to be brought in its name, including being joined as a party-plaintiff, provided that COMPANY shall hold M.I.T. harmless from, and indemnify M.I.T. against, any costs, expenses, or liability that M.I.T. incurs in connection with such action.

11. Except as specifically modified or amended hereby, all other terms and conditions of the LICENSE AGREEMENT shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have caused this First Amendment to be executed under seal by their duly authorized representatives.

**The Effective Date of this First Amendment is July 30, 2007,**

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

TEMPO PHARMACEUTICALS, INC.

By: /s/ Lita L. Nelsen, Director

By: /s/ Alan Crane

Name: Lita L. Nelsen, Director

Name: Alan Crane

Title: Technology Licensing Office

Title: President & CEO

**SECOND AMENDMENT**

This Second Amendment, effective as of the date set forth above the signatures of the parties below, is between the Massachusetts Institute of Technology, a Massachusetts corporation having its principal office at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 (“M.I.T.”), and Tempo Pharmaceuticals, Inc., a Delaware corporation having its principal place of business at 161 First Street, Cambridge, Massachusetts 02142 (“COMPANY”).

WHEREAS, COMPANY and M.I.T. wish to modify the provisions of the Exclusive Patent License Agreement dated December 21, 2006, as amended by First Amendment dated July 30, 2007 (the “LICENSE AGREEMENT”); and

NOW, THEREFORE, in consideration of the promises and mutual covenants contained herein, the parties hereby agree as follows:

1. Clause (i) of Section 3.1 (Diligence Requirements) of the LICENSE AGREEMENT shall be amended to read in its entirety as follows:

“(i) On or before [\*\*], COMPANY or an AFFILIATE or SUBLICENSEE shall [\*\*].”

2. Except as specifically modified or amended hereby, all other terms and conditions of the LICENSE AGREEMENT shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Second Amendment to be executed under seal by their duly authorized representatives.

**The Effective Date of this Second Amendment is June 1, 2008.**

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

TEMPO PHARMACEUTICALS, INC.

By: /s/ Lita L. Nelsen

By: /s/ Alan Crane

Name: Lita L. Nelsen  
Title: Director, Technology Licensing Office

Name: Alan Crane  
Title: President & CEO

### THIRD AMENDMENT

This Amendment, with the effective date of July 30, 2009, is to the Exclusive Patent License Agreement dated December 21, 2006 (“License Agreement”) between Massachusetts Institute of Technology (“MIT”) and Cerulean Pharma Inc. (formerly known as Tempo Pharmaceuticals, Inc., “COMPANY”). Capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the License Agreement.

#### BACKGROUND:

MIT granted COMPANY an exclusive license to the Patent Rights in the License Agreement, with COMPANY agreeing that it would diligently seek to develop products based on the technology of the Patent Rights.

COMPANY has devoted substantial resources in an attempt to develop “two drug” nanotechnology therapeutic products based on the technology of the Patent Rights; however technical difficulties of manufacture and quality control under the current state of the art make continued attempts at development impractical at this time.

COMPANY has meanwhile developed and acquired additional technologies and wishes to devote the majority of its efforts to development and marketing of nanotechnology therapeutic products involving these additional technologies.

COMPANY and MIT believe that new technology for manufacture and quality control of nanotechnology products developed in the course of pursuing these alternative nanotechnology therapeutic products may make development and manufacture of “two drug” nanotechnology therapeutic products based on the technology of the Patent Rights practical in the future.

Therefore, COMPANY and MIT believe it appropriate for COMPANY to suspend, for a limited period of time, its efforts to develop a “two drug” nanotechnology therapeutic product based on the technology of the Patent Rights, and the parties therefore agree to amend the License Agreement as follows:

#### Amendments:

1. COMPANY and MIT agree that as no patent applications were ever filed for M.I.T. case No. [\*\*], the amendments to the License Agreement effected by the First Amendment dated July 30, 2007 (the “First Amendment”) shall be of no force and effect and the language of the License Agreement shall revert to the language in existence prior to the date of the First Amendment, as later amended by the Second Amendment dated June 1, 2008 and as now amended by this Third Amendment.
2. The diligence terms of Sections 3(b), 3(c), 3(f), 3(g), 3(h), 3(i) and 3(j) shall be deleted in their entirety, but with the understanding that new diligence terms shall be agreed upon by the parties in accordance with Section 4 below by June 30, 2014.
3. Subject to Section 5 below, the license maintenance fee schedule under Section 4.1(b) of the License Agreement shall be revised as follows:



January 1, 2010 and each January 1 thereafter through and including January 1, 2014

\$[\*\*]

4. By March 1, 2014, COMPANY shall present to MIT a plan for development of Licensed Products under the PATENT RIGHTS which is satisfactory to MIT and a proposal for new diligence terms for development of Licensed Products. Thereupon, COMPANY and MIT shall negotiate in good faith the new diligence terms, which terms, once agreed upon, shall be added by further amendment to the License Agreement. In the event that COMPANY and MIT are unable to agree on new diligence terms by June 30, 2014, MIT may, at its sole discretion, terminate the License Agreement immediately upon written notice to COMPANY.
5. Beginning January 1, 2015, the following license maintenance fees shall apply:

January 1, 2015	\$[**]
January 1, 2016	\$[**]
January 1, 2017	\$[**]
January 1, 2018	\$[**]
January 1, 2019	\$[**]
January 1, 2020 and each January 1 thereafter	\$[**]

In the event that COMPANY and MIT agree on a new development plan for Licensed Products in a calendar year prior to 2014, the foregoing schedule of license maintenance fees shall be accelerated such that the first \$[\*\*] shall be due on January 1 of the calendar year immediately subsequent to the calendar year in which agreement on the new development plan occurs.

6. If at any time prior to June 30, 2014, if MIT becomes aware of a third party wishing to have a license to the Patent Rights to develop Licensed Products; and provided that (a) COMPANY has not provided MIT with a satisfactory plan for development of the Patent Rights according to Section 4 above; and (b) COMPANY is not in active negotiations with the third party at the time that MIT becomes aware of the third party's wishes for a license; then:
- (i) MIT shall request from both COMPANY and the third party, development plans to bring one or more Licensed Products to market;
  - (ii) MIT shall evaluate the development plans based on capability and commitment of each party to develop Licensed Products and bring them to market, and shall choose the plan it considers to be in the best interests of the commercialization of the Patent Rights, at its sole discretion; and
  - (iii) If the third party's plan is considered superior to that of COMPANY, MIT may, at its sole discretion, either terminate the License Agreement or limit the Field of Use or exclusivity of the License Agreement.
7. Appendix B to the License Agreement is hereby deleted in its entirety and the attached Appendix B is hereby substituted therefore.

8. Except as specifically modified or amended hereby, all other terms and conditions of the License Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Third Amendment to be executed under seal by their duly authorized representatives.

Massachusetts Institute of Technology

Cerulean Pharma Inc.

By: /s/ Lita L. Nelsen, Director

By: /s/ Oliver Fetzer

Name: Lita L. Nelsen, Director

Name: Oliver Fetzer

Title: Technology Licensing Office

Title: Chief Executive Officer

Date: July 30, 2009

Date: July 30, 2009

APPENDIX B

MIT Docket No.	Country	Sutherland Docket No.	Application No.	Status As of July 20, 2009
[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]

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**FOURTH AMENDMENT**

This Fourth Amendment, with the effective date of August 1, 2013 is to the Exclusive License Agreement dated December 21, 2006, as amended by a First Amendment dated July 30, 2007, a Second Amendment dated June 1, 2008 and a Third Amendment dated June 30, 2009 (the "License Agreement") between Massachusetts Institute of Technology ("MIT) and Cerulean Pharma Inc. (formerly known as Tempo Pharmaceuticals Inc., "COMPANY"). Capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the License Agreement.

Whereas, COMPANY has represented to MIT that it continues to devote substantial resources in an attempt to develop nanotechnology therapeutic products based on the technology of the Patent Rights.

Therefore, COMPANY and MIT agree to amend certain provisions of the Third Amendment to the License Agreement to extend certain deadlines as follows:

1. Section 2 of the Third Amendment shall be replaced in its entirety as follows:

The diligence terms of Sections 3(b), 3(c), 3(f), 3(g), 3(h), 3(i) and 3(j) shall be deleted in their entirety, but with the understanding that new diligence terms shall be agreed upon by the parties in accordance with Section 2 below by June 30, 2015.

2. Section 4 of the Third Amendment shall be replaced in its entirety as follows:

By March 1, 2015, COMPANY shall present to MIT a plan for development of Licensed Products under the PATENT RIGHTS which is satisfactory to MIT and a proposal for new diligence terms for development of Licensed Products. Thereupon, COMPANY and MIT shall negotiate in good faith the new diligence terms, which terms, once agreed upon, shall be added by further amendment to the License Agreement. In the event that COMPANY and MIT are unable to agree on new diligence terms by June 30, 2015, MIT may, at its sole discretion, terminate the License Agreement immediately upon written notice to COMPANY.

3. Section 5 of the Third Amendment shall be replaced in its entirety as follows:

Beginning January 1, 2015, the following license maintenance fees shall apply:

January 1, 2015	\$[**]
January 1, 2016	\$[**]
January 1, 2017	\$[**]
January 1, 2018	\$[**]
January 1, 2019	\$[**]
January 1, 2020 and each January 1 thereafter	\$[**]

In the event that COMPANY and MIT agree on a new development plan for Licensed Products in a calendar year prior to 2015, the foregoing schedule of license maintenance fees shall be

accelerated such that the first \$[\*\*] shall be due on January 1 of the calendar year immediately subsequent to the calendar year in which agreement on the new development plan occurs.

4. Section 6 of the Third Amendment shall be replaced in its entirety as follows

If at any time prior to June 30, 2015, if MIT becomes aware of a third party wishing to have a license to the Patent Rights to develop Licensed Products; and provided that (a) COMPANY has not provided MIT with a satisfactory plan for development of the Patent Rights according to Section 4 above; and (b) COMPANY is not in active negotiations with the third party at the time that MIT becomes aware of the third party's wishes for a license; then:

- (i) MIT shall request from both COMPANY and the third party, development plans to bring one or more Licensed Products to market;
- (ii) MIT shall evaluate the development plans based on capability and commitment of each party to develop Licensed Products and bring them to market, and shall choose the plan it considers to be in the best interests of the commercialization of the Patent Rights, at its sole discretion; and
- (iii) if the third party's plan is considered superior to that of COMPANY, MIT may, at its sole discretion, either terminate the License Agreement or limit the Field of Use or exclusivity of the License Agreement.

5. Except as specifically modified or amended hereby, all other terms and conditions of the License Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Fourth Amendment to be executed under seal by their duly authorized representatives.

Massachusetts Institute of Technology

Cerulean Pharma Inc.

By: /s/ Lita L. Nelsen

By: /s/ Jean M. Silveri

Name: Lita L. Nelsen, Director

Name: Jean M. Silveri

Title: Technology Licensing Office

Title: General Counsel

Date: August 5, 2013

Date: August 7, 2013

**PATENT LICENSE AGREEMENT**  
**between**  
**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK**  
**and**  
**TEMPO PHARMACEUTICALS, INC.**

This Patent License Agreement (“Agreement”) is effective as of August 31st, 2007 (“Effective Date”) by and between The Research Foundation of State University of New York, on behalf of University at Buffalo, a non-profit corporation organized and existing under the laws of the State of New York (“Foundation”) and Tempo Pharmaceuticals, Inc., a Delaware corporation, with an address at 161 First Street, Cambridge, Massachusetts 02142 (“Tempo”).

WHEREAS, Foundation and Tempo wish to enter into an exclusive field-of-use license agreement to facilitate the development and commercialization of certain technology developed at the University at Buffalo so that this technology may be utilized to the fullest extent for the benefit of Tempo, Foundation, the inventors and the public;

NOW, THEREFORE, in consideration of the terms and considerations hereinafter set forth, the parties agree as follows:

**1. DEFINITIONS**

All capitalized terms used in this Agreement will have the meanings stated below or defined elsewhere in the Agreement.

- 1.1 “**Affiliate**” means every corporation or entity which, directly or indirectly, or through one or more intermediaries, controls, is controlled by, or is under common control with Tempo.
- 1.2 “**Field**” means the use of a Licensed Product, which is a single pharmaceutical composition that contains within such pharmaceutical composition (a) a therapeutic or prophylactic agent and (b) one or more nano-scale or micro-scale compartments containing either (i) a different therapeutic and/or prophylactic agent or (ii) a different formulation of the agent described in (a), for the treatment and/or prevention of disease in humans. For the avoidance of doubt, the Field does not include the use of a Licensed Product, which is a physical mixture of two separate pharmaceutical compositions, each containing a single therapeutic or prophylactic agent.
- 1.3 “**Foundation Patent Rights**” means Foundation’s patent rights to any subject matter claimed in or covered by (a) any issued United States or foreign patent or any United States or foreign patent application listed in Exhibit A attached hereto, including any patent issuing on any patent application listed in Exhibit A; (b) any continuation or divisional applications of the patents and patent applications referred to in (a), including continuations-in-part directed to subject matter contained in the patents and patent applications referred to in (a); (b) any patents issuing on the continuation or divisional applications referred to in (b); and (c) any reissues, reexaminations, extensions or supplemental protection certificates of

the foregoing patents and issuing patents. For purposes of clarity, Foundation Patent Rights will not include continuations-in-part directed to improvements which are new subject matter.

- 1.4 “**Foundation 5214 Patent Rights**” means the subset of Foundation Patent Rights which pertain to Foundation Docket No. R-5214 titled [\*\*]
- 1.5 “**Foundation 5431 Patent Rights**” means the subset of Foundation Patent Rights which pertain to Foundation Docket No. R-5431 titled [\*\*]
- 1.6 “**Licensed Product**” means any product that if made, used, offered for sale, sold, imported, leased or otherwise transferred in the United States or any other country would, but for the license granted herein, infringe one or more Valid Claims of the Foundation Patent Rights.
- 1.7 “**Net Sales**” means the gross revenues actually received by Tempo and its Affiliates and Sublicensees from the sale, lease or other transfer of Licensed Products, less (a) sales and/or use taxes actually paid, (b) import and/or export duties actually paid, (c) outbound transportation paid, prepaid or allowed, (d) amounts allowed or credited due to returns, and (e) trade, cash and quantity discounts in amounts customary in the trade, all as reflected on written invoices and, in the case of clause (d) or (e), not to exceed the original or initial invoice amount. In this context, gross revenues will also include the fair market value of any non-cash consideration actually received by Tempo and its Affiliates and Sublicensees for the sale, lease, or other transfer of Licensed Products.
- 1.8 “**Patent Costs**” means all reasonable costs incident to filing, prosecuting and maintaining the patents and patent applications within the Foundation Patent Rights in the United States and elected foreign countries, including any and all reasonable costs incurred in filing any continuation or divisional applications or incurred in connection with any re-examinations, reissue proceedings or extensions.
- 1.9 “**Phase II Clinical Trial**” means a human clinical trial to confirm short-term safety and efficacy undertaken with the intent that should sufficient positive data result, a Phase III Clinical Trial will follow.
- 1.10 “**Phase III Clinical Trial**” means a large-scale human clinical trial to confirm safety and efficacy undertaken with the intent that should sufficient positive data result, approval for marketing and sale will be sought from a regulatory authority.
- 1.11 “**Post-Effective Date Patent Costs**” has the meaning set forth in Section 6.3.
- 1.12 “**Pre-Effective Date Patent Costs**” has the meaning set forth in Section 6.1.
- 1.13 “**Product Royalty**” has the meaning set forth in Section 3.3.

- 1.14 “**Subcontractor**” means an independent contractor retained by Tempo to provide contract services to Tempo that assist Tempo in developing the Licensed Products.
- 1.15 “**Sublicensee**” means any third party to whom Tempo grants a sublicense of any or all of the rights granted Tempo under this Agreement other than an Affiliate or Subcontractor of Tempo.
- 1.16 “**Term**” means the period of time beginning on the Effective Date and ending on the expiration date of the last to expire of the Foundation Patent Rights.
- 1.17 “**Territory**” means worldwide.
- 1.18 “**Valid Claim**” means an unexpired claim in an issued unexpired patent or supplementary protection certificate within the Foundation Patent Rights that has not been revoked, abandoned, disclaimed or withdrawn, or held unenforceable, unpatentable or invalid by a court of competent jurisdiction in a final judgment that has not been appealed within the time allowed by law or from which there is no further appeal.

**2. GRANT OF RIGHTS AND RETAINED RIGHTS**

- 2.1 **Exclusive License.** Subject to the terms of this Agreement, Foundation grants to Tempo an exclusive field-of-use license under the Foundation Patent Rights to research, develop, make, have made, use, offer for sale, sell, have sold, import and export Licensed Products in the Field in the Territory during the Term. The foregoing license may be exercised directly by Tempo or indirectly through an Affiliate of Tempo. The license granted is subject to the overriding obligations to the U.S. Government set forth in 35 USC 200-212, and applicable governmental implementing regulations, and the provisions of Article 4.
- 2.2 **Retained Rights.** Foundation retains the right to use the Foundation Patent Rights for educational purposes and internal research and development, including collaborations with researchers at other academic and not-for-profit research institutions.

**3. COMPENSATION AND PAYMENT TERMS**

- 3.1 **Upfront Fee.** Tempo will pay to Foundation, within [\*\*] days of the Effective Date, a one-time, nonrefundable payment of [\*\*] U.S. Dollars (US\$[\*\*]).
- 3.2 **License Maintenance Fee.** Tempo will pay Foundation the following non-refundable, non-creditable license maintenance fees:

License Maintenance Fee (US\$) upon each anniversary of the Effective Date :	Beginning on:	Ending on:
\$[**]	The [**] of the Effective Date	The [**] of the Effective Date



3.3 **Royalties on Net Sales.** During the Term, Tempo will pay Foundation a running product royalty on annual Net Sales of Licensed Products (“Product Royalty”) as follows. With respect to Licensed Products whose manufacture, use or sale is covered by a Valid Claim of the Foundation 5431 Patent Rights but not a Valid Claim of the Foundation 5214 Patent Rights, the royalty rate will be [\*\*]% of Net Sales, whether the sales are made by Tempo and its Affiliates or by Sublicensees. With respect to Licensed Products whose manufacture, use or sale is covered by a Valid Claim of the Foundation 5214 Patent Rights, whether or not also covered by a Valid Claim of the Foundation 5431 Patent Rights, the royalty rate will be [\*\*]% of Net Sales, whether the sales are made by Tempo and its Affiliates or by Sublicensees.

If Tempo sublicenses to a third party any of the Foundation Patent Rights in order to allow such third party to practice Foundation Patent Rights in conjunction with Tempo’s other intellectual property in the Field as permitted under Article 5, Tempo will not be obligated to pay Foundation a percentage of the sublicensing revenues received by it in connection with such sublicense; provided, however, that Tempo will be obligated to pay the Product Royalty, as specified above, on annual Net Sales of Licensed Products made by Sublicensees.

In the event that Tempo is required to license any patent rights from a third party in order to have the freedom to operate under the Foundation Patent Rights, Tempo shall be entitled to deduct, from the Product Royalties due Foundation, as specified above, [\*\*] percent ([\*\*]%) of the amounts due the third party under such license, provided that, in any calendar quarter, such deduction shall not exceed [\*\*] percent ([\*\*]%) of the total Product Royalty that would otherwise be due Foundation, as specified above.

3.4 **Milestone Payments.** Tempo will pay Foundation the following non-refundable, non-creditable milestone payments within [\*\*] days after Tempo’s, or its Affiliate’s or Sublicensee’s achievement, of each of the following milestones:

Milestone	Payment if event is achieved by Tempo or Affiliate:	Payment if event is achieved by Sublicensee:
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]

Each milestone payment will be payable only once, at the time that such milestone is first achieved for the first Licensed Product to reach such milestone.

If a milestone is combined with another milestone that is normally expected to be a later development or regulatory step, then the milestone that was expected to occur later will be deemed to have been achieved at the same time as such earlier milestone is achieved, and the corresponding payment for both milestones will be due. For example, if [\*\*], Tempo will pay Foundation the sum of the milestone payments due for [\*\*].

If a milestone is skipped or avoided by advancing to what would normally be expected to be a later development or regulatory step, then the milestone that was expected to occur earlier will be deemed to have been achieved at the same time as such later milestone is achieved, and the corresponding payment for both milestones will be due.

- 3.5 **Payment Terms.** All dollar amounts referenced herein will refer to U.S. Dollars. License maintenance fees will be paid on or before the dates specified in Section 3.2. Reimbursement of Pre-Effective Date Patent Costs will be paid on or before the dates specified in Section 6.1. Reimbursement of Post-Effective Date Patent Costs will be due and payable as specified in Section 6.3. Milestone payments will be due and payable as specified in Section 3.4. Product Royalty payments will be made within [\*\*] days after the end of each calendar quarter in respect of such calendar quarter. If requested by Tempo, Foundation will provide Tempo with an invoice for payments due Foundation. When Licensed Products are sold for currencies other than U.S. Dollars, Product Royalties will first be determined in the foreign currency of the country in which the Licensed Products were sold and then converted into equivalent U.S. Dollars. The exchange rate will be the rate quoted in the East Coast Edition of the Wall Street Journal on the last business day of the reporting period as the local currency per U.S. Dollar.
- 3.6 **Payment Address.** All payments will be made payable to “The Research Foundation of State University of New York” and will be sent to the below address:
- UB Office of Science, Technology Transfer & Economic Outreach  
UB Technology Incubator  
Baird Research Park  
Suite 111  
1576 Sweet Home Road  
Amherst, NY 14228  
Attn: Licensing Specialist
- 3.7 **Late Payment.** In the event that payments are not received by Foundation when due, Tempo will pay to Foundation interest charges at a rate of [\*\*] percent ([\*\*]%) per annum. Interest will be calculated from the date payment was due until actually received by Foundation.
- 3.8 **Foreign Charges.** Product Royalties due on Net Sales that occur in any country outside the United States may not be reduced by any deduction of withholding, value-added taxes, fees, or other charges imposed by the government of such

country, except as permitted in the definition of Net Sales. Tempo is responsible for all bank transfer charges.

**4. DUE DILIGENCE AND MARKETING OBLIGATIONS**

- 4.1 Tempo will use commercially reasonable efforts to commercialize and market Licensed Products as soon as practicable and in accordance with the milestone events set forth in Section 4.2.
- 4.2 Tempo, whether directly or through Affiliates, Subcontractors or Sublicensees, will diligently proceed with the research, development, manufacture, use and sale of Licensed Products and will make them readily available on commercially reasonable terms once introduced into the marketplace. Such diligence will be subject to the following diligence milestones:

<u>Milestone No.</u>	<u>Milestone</u>	<u>Completion Date</u>
1	[**]	[**]
2	[**]	[**]
3	[**]	[**]
4	[**]	[**]
5	[**]	[**]
6	[**]	[**]

Tempo will notify Foundation in writing within [\*\*] days of the achievement of any of the [\*\*] milestones set forth above. Achievement of the [\*\*] milestones shall be reported as part of the report required under Section 7.4.

- 4.3 In the event that Tempo fails to meet any milestone set forth in Section 4.2, Foundation and Tempo will discuss the reason therefore. If Foundation is not reasonably satisfied with Tempo’s justification for a specific failure, the license maintenance fees from that point forward will be increased by [\*\*]. Thereafter, if Foundation is not reasonably satisfied with Tempo’s justification for an additional failure (i.e., a second failure), all rights granted to Tempo under the Agreement will automatically become non-exclusive.

**5. SUBLICENSING**

- 5.1 The license granted in this Agreement includes the right of Tempo to grant sublicenses to third parties, provided that such sublicenses restrict the practice of the Foundation Patent Rights to practice in conjunction with Tempo’s other technologies in the Field. With respect to sublicenses granted pursuant to this Article 5, Tempo will:

- (a) ensure that such sublicenses are consistent with the terms and conditions of this Agreement;

- (b) promptly provide Foundation with a copy of each sublicense agreement entered into with a Sublicensee, which sublicense agreements may be redacted in order to preserve the confidentiality of information not pertinent to Foundation’s interests in such sublicense agreements; and
- (c) use commercially reasonable efforts to collect from all Sublicensees any and all information necessary in order for Tempo to deliver to Foundation the reports required under this Agreement.

5.2 Upon termination of this Agreement for any reason, all sublicenses granted to Sublicensees prior to the date of termination shall survive and be assumed by Foundation so long as the following terms and conditions are met. As long as a Sublicensee is in compliance with its agreement with Tempo, Foundation agrees to honor the sublicense granted to such Sublicensee, provided that such Sublicensee enters into a written agreement with Foundation in which it agrees to comply with the terms and conditions, including without limitation, the financial terms and conditions, of this Agreement.

**6. PATENT PROSECUTION AND PATENT COSTS**

6.1 **Patent Costs Incurred Pre-Effective Date.** Tempo will reimburse Foundation for [\*\*] Percent ([\*\*]%) of un-reimbursed Patent Costs incurred by Foundation prior to the Effective Date (the “Pre-Effective Date Patent Costs”), which total \$77,326.33 (as of July 31, 2007), in accordance with the following:

<u>Timing of Reimbursement for Pre-Effective Date Patent Costs</u>	<u>Amount of Pre-Effective Date Patent Costs to be Paid</u>
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

6.2 **Patent Rights Management.** Foundation will control and manage all future preparation, filing, prosecution and maintenance of the Foundation Patent Rights, it being understood that (a) no filings shall be made in any additional foreign countries without the prior written consent of Tempo and (b) no patents or claims within pending patent applications shall be abandoned without the prior written consent of Tempo.

6.3 **Post-Effective Date Patent Costs.** Tempo will reimburse Foundation for [\*\*] Percent ([\*\*]%) of Patent Costs incurred after the Effective Date (“Post-Effective Date Patent Costs”) within [\*\*] days after its receipt of a copy of the applicable invoice. Foundation may, at its option, invoice Tempo, or have the firm or other entity providing the patent related service send a copy of each patent expense invoice to Tempo so that it can directly pay such firm for such expenses.

6.4 **Shared Patent Costs.** Notwithstanding the foregoing, if, at anytime, the Foundation licenses all or a portion of the Foundation Patent Rights to another third party for a different field, or for the Field in the case of a conversion to non-exclusivity as described under Section 4.3, Tempo will be entitled to reimbursement from the Foundation equal to a percentage of all Patent Costs paid by Tempo through the date of such license in respect of such Foundation Patent Rights. The percentage due Tempo will be equal to Tempo's pro-rata share of all such Patent Costs, based on the number of licensees, with reimbursements paid to Tempo at the time of each subsequent license granted by the Foundation in respect of such Foundation Patent Rights. Furthermore, on a going forward basis, Patent Costs will be shared equally by all licensees of such Foundation Patent Rights.

## 7. BOOKS, RECORDS AND REPORTS

- 7.1 **Books and Records.** Tempo will keep complete, true and accurate books of account containing reasonable particulars that may be necessary for the purpose of showing the amounts payable to Foundation hereunder and for the purpose of showing compliance with all other obligations under this Agreement. Said books and the supporting data will be available at all reasonable times for [\*\*] years following the end of the calendar year to which they pertain, for confidential inspection (subject to Foundation's obligations relating to internal reporting and accounting requirements) by an independent certified public accountant selected by Foundation and reasonably acceptable to Tempo, upon reasonable notice to Tempo, for the purpose of verifying Tempo's royalty statement or compliance in other respects with this Agreement. Foundation and its agents may make copies of relevant information during the course of an inspection. In addition, Tempo agrees to provide copies to Foundation of relevant records upon request of Foundation. Each party will promptly pay or credit the other for any underpayment or overpayment discovered during an inspection. Should such inspection lead to the discovery of a greater than [\*\*] percent ([\*\*]%) discrepancy in reporting to Foundation's detriment, Tempo will pay (a) the full cost of the inspection and (b) a late charge on the full amount of the discrepancy at the rate specified in Section 3.7.
- 7.2 **Quarterly Reports.** Commencing with the first commercial sale of a Licensed Product, within [\*\*] days after the end of each calendar quarter during the term of this Agreement, Tempo will provide reports containing the following information relating to the quarter: (a) number and type of Licensed Products sold by Tempo, Affiliates and Sublicensees; (b) Net Sales (and the calculation of Net Sales); and (c) Product Royalties due under Section 3.3 for the calendar quarter. The foregoing will be provided on a country-by-country and product-by-product basis.
- 7.3 **Report Certification.** An officer of Tempo will sign and certify each report delivered pursuant to Section 7.2, and all reports will be prepared in accordance with Generally Accepted Accounting Principles. If no Product Royalties are due for a particular period, Tempo will submit a report to Foundation to such effect.

- 7.4 **[\*\*] Due Diligence Reports.** Within [\*\*] days after the end of each [\*\*], Tempo will provide reports, relating to the [\*\*], pertaining to its development and/or commercialization of Licensed Products. Such reports shall include the following type of information: new product development, product evaluation and testing, progress towards the milestones set forth in Section 4.2, marketing plans, sales forecasts, and other significant development or commercialization events.

## 8. PATENT RIGHTS INFRINGEMENT

- 8.1 Foundation and Tempo will promptly inform the other in writing of any patent infringement by a third party of the Foundation Patent Rights and will provide the other with any available evidence of such infringement.
- 8.2 With respect to infringements that pertain to the development and commercialization of Licensed Products in the Field (“Related Infringements”), Foundation shall have, for a period of [\*\*] days from the notice of infringement of the Foundation Patent Rights, the first right to institute an action or suit against such third party in accordance with the following:
- (a) The action or suit shall be brought in the name of Foundation and Foundation shall bear the entire cost of such action or suit.
  - (b) With respect to any consideration received by Foundation in connection with such action or suit, Foundation shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Tempo). The remaining recovery shall be deemed to be lost profits of Tempo and paid over to Tempo, provided that Foundation shall be entitled to receive royalties equal to the royalty rate set forth in Section 3.3 applied to such remaining recovery and multiplied by [\*\*].
  - (c) If it shall be necessary for Foundation to join Tempo as a party to an action or suit because Tempo constitutes a legally indispensable party, Foundation shall have the right to so join Tempo, provided that Foundation indemnifies Tempo for all costs and expenses thereby incurred by Tempo.
- 8.3 With respect to infringements that pertain to the development and commercialization of Licensed Products in the Field (“Related Infringements”), if within [\*\*] days after notification of an infringement of the Foundation Patent Rights, Foundation has not been successful in persuading the alleged infringer to desist, is not diligently pursuing an infringement action or suit, or has notified Tempo of its intent not to bring action or suit against the alleged infringer, then Tempo may institute an action or suit against such third party in accordance with the following:
- (a) The action or suit shall be brought in the name of Tempo and Tempo shall bear the entire cost of such action or suit.

- (b) With respect to any consideration received by Tempo in connection with such action or suit, Tempo shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Foundation). The remaining recovery shall be deemed to be lost profits of Tempo and retained by Tempo, provided that Foundation shall be entitled to receive royalties equal to the royalty rate set forth in Section 3.3 applied to such remaining recovery and multiplied by [\*\*].
  - (c) If it shall be necessary for Tempo to join Foundation as a party to an action or suit because Foundation constitutes a legally indispensable party, Tempo shall have the right to so join Foundation, provided that Tempo indemnifies Foundation for all costs and expenses thereby incurred by Foundation.
  - (d) Notwithstanding the provisions herein above, Foundation may elect to participate, through its own counsel or otherwise, in any action brought by Tempo and bear an agreed-upon proportion of the expense of the action. In such case, after reimbursement of Foundation expenses, Foundation entitlement to any recoveries shall be limited to the amount Tempo would have had to pay to Foundation had Tempo solely commenced and directed the action.
- 8.4 In the event that a declaratory judgment action alleging invalidity, unenforceability or noninfringement of the Foundation Patent Rights is brought against Tempo, Foundation reserves the right, within [\*\*] days after commencement of such action, to intervene and take over the sole defense to the action at its own expense.
- 8.5 If any action or suit is brought involving the enforcement or defense of the Foundation Patent Rights under this Article 8, the other party hereto agrees, at the request and expense of the party initiating such action or suit, to reasonably cooperate and to make available relevant records, papers, information, samples, specimens and the like.
- 8.6 No settlement or consent judgment or other voluntary final disposition of an enforcement or defense action or suit initiated by either party under this Article 8 may be entered into without the consent of the other, which consent will not be unreasonably withheld, provided that Tempo shall, in its sole discretion, have the right to determine whether or not to grant, and on what terms to grant, a sublicense in the Field to any infringer of the Foundation Patent Rights.

## **9. INDEMNIFICATION AND INSURANCE**

- 9.1 Tempo will defend, indemnify and hold Foundation, its officers, trustees, employees and agents, harmless from and against any and all claims, actions, suits, loss, injury, expenses, damages, liability, cost and expenses (including reasonable

attorneys' fees, whether incurred as a result of a third party claim or a claim to enforce this provision) of any kind or nature arising out of, or resulting from, the exercise or practice of the license granted under this Agreement, including without limitation, liabilities arising from the production, manufacture, sale, use, lease, or advertisement of Licensed Products. Tempo agrees to keep Foundation informed of the progress in the defense and disposition of such claim and to consult with Foundation with regard to any proposed settlement. Any settlement that could reasonably be expected to have a material adverse effect on the reputation of Foundation will require Foundation's prior written approval, which approval will not be unreasonably withheld, conditioned or delayed.

- 9.2 Tempo will at all times comply, through insurance or self-insurance, with all statutory worker's compensation and employers' liability requirements covering all employees with respect to activities performed under this Agreement. In addition, Tempo will maintain, from the initiation of human trials, if applicable, and for so long as Tempo customarily maintains insurance for its other products, Comprehensive General Liability Insurance, including Products Liability Insurance, with reputable and financially secure insurance carriers to cover the activities of Tempo and its Affiliates and Sublicensees. This insurance will provide minimum limits of liability of [\*\*] US dollars (US\$[\*\*]) until first commercial sale of a Licensed Product, and then increase to a minimum of [\*\*] U.S. dollars (US\$[\*\*]) for the remaining term of this Agreement. This insurance will include the Foundation and the State University of New York, their regents, officers, employees, students and agents as additional insureds. This insurance will be written to cover claims made during or after the expiration of this Agreement. Tempo will furnish a Certificate of Insurance evidencing the foregoing coverage and requiring [\*\*] days prior written notice of cancellation or material change to Foundation. All insurance of Tempo will be primary coverage vis-à-vis Foundation; insurance of Foundation or the State University of New York will be excess and noncontributory.

## 10. TERMINATION

- 10.1 **Term.** This Agreement shall expire at the conclusion of the Term.
- 10.2 **Tempo Termination Right.** Tempo will have the right, at any time, to terminate its rights to (a) the Foundation 5241 Patent Rights, (b) the Foundation 5431 Patent Rights or (c) this entire Agreement, in each case, upon six months prior written notice to Foundation.
- 10.3 **Termination for Breach.** If either party should (a) violate or fail to perform any material covenant, condition or undertaking of this Agreement, (b) have a bankruptcy action filed against it, or (c) have a receiver appointed for it, then the other party may give written notice of such default or occurrence to such party. If such party should fail to cure such default or occurrence within [\*\*] months of notice of such default or occurrence, then this Agreement may, at the other party's option and to the extent permitted by law, be terminated by a second written



notice to such party. For the avoidance of doubt, breaches of diligence shall be handled as set forth in Section 4.3 and shall not be deemed to be material breaches.

- 10.4 **Automatic Termination.** If Tempo (a) ceases to carry on its business, (b) files a bankruptcy action, (c) becomes insolvent, (d) makes an assignment for the benefit of creditors, or (e) challenges, whether as a claim, cross-claim, counterclaim or defense, the validity or enforceability of any of the Foundation Patent Rights before any court, arbitrator or other tribunal or administrative agency in any jurisdiction, this Agreement, to the extent permitted by law, will immediately terminate without any further action by Foundation.
- 10.5 **Accrued Obligations.** Termination of this Agreement will not relieve either party of any obligation or liability accrued hereunder prior to the time such termination becomes effective, or rescind or give rise to any right to rescind any payments made or other consideration given to Foundation hereunder prior to the time such termination becomes effective. Such termination will not affect in any manner any rights of either party arising under this Agreement prior to the date of such termination. Tempo will pay all attorney's fees and costs incurred by Foundation in enforcing any obligation of Tempo or accrued right of Foundation.
- 10.6 **Disposition of Licensed Products.** Upon any termination of this Agreement, Tempo will provide Foundation with a written inventory of all Licensed Products in the process of manufacture, in use or in stock. Tempo and its Affiliates and Sublicensees may dispose of any such Licensed Products within the [\*\*] day period following such termination, provided, however, that Tempo will pay royalties and render reports to Foundation thereon in the manner specified herein.
- 10.7 **Survival.** The provisions of Article 1 (Definitions), Article 9 (Indemnification and Insurance), Section 10.6 (Disposition of Licensed Products), Section 10.7 (Survival), Article 11 (Warranty and Liability), Article 14 (Non-Use of Names), Article 17 Confidentiality), Article 18 (Miscellaneous) will survive expiration or termination of this Agreement. In addition, the provisions of Section 5.2 (Continuation of Sublicenses) and Sections 7.1-7.3 (Product Royalty Records and Reports) will survive termination of this Agreement.

## 11. WARRANTY AND LIABILITY

- 11.1 Foundation hereby represents and warrants to Tempo that, to the best of its knowledge, Foundation is the owner of the entire right, title and interest in the Foundation Patent Rights and in the inventions described and claimed therein and has the right to grant the license granted herein. Foundation has not granted to any third party any right or interest in the Foundation Patent Rights inconsistent or in conflict with the rights granted to Tempo hereunder.
- 11.2 EXCEPT AS OTHERWISE EXPRESSLY SET FORTH HEREIN, FOUNDATION MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED,

INCLUDING, BUT NOT LIMITED TO, WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR VALIDITY OF PATENT RIGHTS CLAIMS, ISSUED OR PENDING.

- 11.3 NO WARRANTY OR REPRESENTATION IS MADE THAT ANYTHING MADE, USED, SOLD OR COMMERCIALY TRANSFERRED UNDER THE TERMS OF THIS LICENSE WILL BE FREE FROM INFRINGEMENT OF ANY THIRD PARTY PATENT CLAIMS.
- 11.4 NOTHING IN THIS AGREEMENT, EITHER EXPRESS OR IMPLIED, OBLIGATES FOUNDATION EITHER TO BRING OR TO PROSECUTE ACTIONS OR SUITS AGAINST THIRD PARTIES FOR PATENT INFRINGEMENT OR TO FURNISH ANY KNOW-HOW OR TRADE SECRETS NOT DESCRIBED IN THE FOUNDATION PATENT RIGHTS.
- 11.5 IN NO EVENT WILL FOUNDATION BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THIS AGREEMENT, INCLUDING FOR LOST PROFITS, LOST DATA OR DOWNTIME, WHETHER OR NOT FOUNDATION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
- 11.6 THIS AGREEMENT DOES NOT CONFER BY IMPLICATION, ESTOPPEL, OR OTHERWISE ANY LICENSE OR RIGHTS TO ANY OTHER FOUNDATION PROPERTY OTHER THAN THOSE RIGHTS EXPRESSLY STATED HEREIN.

## **12. ASSIGNMENT**

This Agreement and the license granted hereunder may not be assigned or transferred by Tempo except in connection with the sale or other transfer of Tempo's business to which the license granted hereunder relates. Tempo will use commercially reasonable efforts to give Foundation [\*\*] days prior written notice of any assignment or transfer of Tempo's business to which the license granted hereunder relates, and will provide Foundation with documentation executed by the assignee or transferee that confirms its agreement to be bound by the terms and provisions of this Agreement.

## **13. OBLIGATIONS TO FEDERAL GOVERNMENT AND OTHER SPONSORS**

The Agreement will be subject to the rights of the United States Government resulting from any funding of the inventions described or claimed in the Foundation Patent Rights by the United States Government. While to Foundation's knowledge no such entities exist, this Agreement will also be subject to the rights of any other entities that may have contributed funding to development of the technology that is the subject of the Foundation Patent Rights. Tempo acknowledges that such rights reserve to the United States Government, a royalty-free, non-exclusive, non-transferable license to practice or have practiced on its behalf any government-funded invention claimed within any associated patents or patent applications as well as other rights.

#### 14. NON-USE OF NAMES

Tempo agrees that it will not use Foundation's name or State University of New York, or University at Buffalo, adaptation thereof (including logos and symbols associated with Foundation and "State University of New York", and "University at Buffalo") (collectively "SUNY"), or the names of the scientists, researchers or others employed at or with SUNY in any advertising, promotional or sales literature without first obtaining Foundation's prior written consent, or in the case of the names of such researchers, scientists or employees the prior written consent of the individuals, except that Tempo may state that it is a licensee of the Foundation.

Unless required by law, neither party will issue a press release, or otherwise publicly disclose information, regarding this Agreement or the terms and conditions of this Agreement without the prior written consent of the other party.

#### 15. FOREIGN LAWS

When required by local or national law, Tempo will register this Agreement, pay all costs and legal fees connected therewith, and otherwise insure that the local and national laws affecting this Agreement are fully satisfied.

#### 16. COMPLIANCE WITH LAWS

16.1 **General Compliance.** Tempo will ensure compliance with all applicable county, state, federal or foreign laws, rules, and regulations governing the production, use, marketing, sale, and distribution of Licensed Products.

16.2 **Export Control Laws.** Tempo and its Affiliates and Sublicensees will comply with all United States laws and regulations controlling the export of certain commodities and technical data, including without limitation all Export Control Regulations of the United States Department of Commerce and International Traffic In Arms Regulations. Among other things, these laws and regulations prohibit or require a license for the export of certain types of commodities and technical data to specified countries. In order to facilitate the exchange of technical information under this Agreement, therefore, Tempo gives its assurance to Foundation that Tempo will not knowingly, unless prior authorization is obtained from the appropriate office, export directly or indirectly any technical data received from Foundation under this Agreement and will not export directly Licensed Product or technical data to any restricted country in each case, except in compliance with all U.S. laws and regulations. Foundation neither represents that a license is or is not required nor that, if required, it will be issued by the U.S. Department of Commerce or other appropriate governmental entity.

#### 17. CONFIDENTIALITY

17.1 **Confidential Information.** As used in this Agreement, "Confidential Information" will mean confidential or proprietary information exchanged between the parties hereunder pertaining to Licensed Products and/or obligations

of the parties under this Agreement. Confidential Information will include (a) written or other tangible information marked as confidential or proprietary, (b) orally disclosed information that is identified as confidential and summarized in a notice delivered within [\*\*] days of the disclosure, and (c) information that should reasonably be considered confidential under the context in which the disclosure is made (e.g., nonpublic patenting information and nonpublic infringement information). Without limiting the generality of the foregoing, all information contained in reports delivered by Tempo to Foundation hereunder shall automatically be deemed to be the Confidential Information of Tempo.

- 17.2 **Confidentiality Obligations.** Each party agrees to (a) maintain the other party's Confidential Information in confidence and (b) not disclose the other party's Confidential Information to any other party, without the prior written consent of the disclosing party. Each party agrees to limit its use of the other party's Confidential Information to the purposes permitted by this Agreement.
- 17.3 **Termination and Expiration of Confidentiality Obligations.** The obligations of Section 17.2 will expire [\*\*] years from the date of expiration or termination of this Agreement, provided that Foundation's obligation to Tempo with respect to the information contained in the reports delivered by Tempo to Foundation hereunder shall be perpetual. Notwithstanding the foregoing, the obligations of Section 17.2 will terminate with respect to any particular portion of the Confidential Information which: (a) was in the receiving party's possession prior to disclosure to it by the disclosing party; (b) is or hereafter becomes, through no fault of the receiving party, part of the public domain by publication or otherwise; (c) is furnished to the receiving party by a third party after the time of disclosure hereunder as a matter of right and without restriction on its disclosure; or (d) is independently developed by employees or agents of the receiving party independently of and without reference to Confidential Information received from the disclosing party.
- 17.4 **No Delivery of Know-How, Materials or Technology.** For purpose of clarity, the parties acknowledge that the license hereunder covers solely the Foundation Patent Rights and Foundation will not be delivering to Tempo any know-how, materials or technology in connection with the license of the Foundation Patent Rights.

## 18. MISCELLANEOUS

- 18.1 **Governing Law.** This Agreement will be construed, governed, interpreted and applied in accordance with the laws of the State of New York, except that questions affecting the construction and effect of any patent will be determined by the law of the country in which the patent was granted.
- 18.2 **Entire Agreement.** This Agreement, including Exhibit A, embodies the entire agreement and understanding between the parties to this Agreement and supersedes all prior agreements and understandings relating to the subject matter

of this Agreement. None of the terms or provisions of this Agreement may be altered, modified, or amended except by the execution of a written instrument signed by the parties hereto.

- 18.3 **Severability.** The provisions of this Agreement are severable, and in the event that any provisions of this Agreement are determined to be invalid or unenforceable under any controlling body of law, such invalidity or unenforceability will not in any way affect the validity or unenforceability of the remaining provisions hereof.
- 18.4 **Notices.** All notices, requests, consents and other communications to be provided under this Agreement must be in writing and (a) delivered in person, (b) sent overnight delivery by a nationally recognized courier, or (c) sent by certified or registered mail, return receipt requested, to the addresses provided below, and will be deemed to have been given (x) when hand delivered, (y) one (1) day after being sent when sent by overnight courier, or (z) five (5) days after mailing when mailed by certified or registered mail:

If to Tempo, to:

Tempo Pharmaceuticals, Inc.  
161 First Street  
Cambridge, Massachusetts 02142  
Attn: Chief Executive Officer

If to Foundation, to:

UB Office of Science, Technology Transfer and Economic Outreach (STOR)  
University at Buffalo Technology Incubator  
Baird Research Park  
Suite 111  
1576 Sweet Home Road  
Amherst, NY 14228  
Attn: Director

or at other addresses as may be given from time to time in accordance with the terms of this notice provision.

- 18.5 **Waiver.** No waiver by either party hereto of any breach or default of any of the covenants or agreements herein set forth will be deemed a waiver as to any subsequent and/or similar breach or default.
- 18.6 **Patent Marking.** To the extent commercially feasible and consistent with prevailing business practices, Tempo will mark, and will cause its Affiliates and Sublicensees to mark, all Licensed Products that are manufactured or sold under this Agreement with the number of each issued patent under the Foundation Patent Rights that applies to such Licensed Product.

- 18.7 **Force Majeure.** Neither party will be liable for failure or delay of fulfillment of all or part of this Agreement, directly or indirectly owing to acts of nature, governmental orders or restriction, war, warlike conditions, revolution, riot, looting, strike, lockout, fire, flood, or any other cause or circumstances beyond the parties' control.
- 18.8 **Headings.** The headings of the articles and sections are inserted for convenience of reference only, and are not intended to influence the interpretation of this Agreement.
- 18.9 **Manufactured in U.S.** Tempo agrees that Licensed Products leased or sold in the United States will be manufactured substantially in the United States to the extent required by applicable laws.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives.

**TEMPO PHARMACEUTICALS, INC.**

**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF  
NEW YORK**

By: /s/ Alan Crane  
Alan Crane, Chief Executive Officer

By: /s/ Woodrow Maggard

Date: August 27, 2007

Date: August 30, 2007

EXHIBIT A

FOUNDATION PATENT RIGHTS

<u>Patent or Application Number</u>	<u>Location/Type of Patent or Patent Application</u>	<u>Title (RF Docket Number)</u>	<u>Filed</u>	<u>Issued</u>	<u>Assignee</u>	<u>Inventors</u>	<u>Sponsor</u>
[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]

**FIRST AMENDMENT**  
**to**  
**PATENT LICENSE AGREEMENT**  
**between**  
**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK**  
**and**  
**CERULEAN PHARMA INC.**

This First Amendment to Patent License Agreement (“First Amendment”), effective as of February 9, 2009 (“First Amendment Effective Date”), is by and between The Research Foundation of State University of New York, a non-profit corporation organized and existing under the laws of the State of New York (“Foundation”) and Cerulean Pharma Inc. (f/k/a Tempo Pharmaceuticals, Inc.), a Delaware corporation, with an address at 161 First Street, Cambridge, Massachusetts 02142 (“Cerulean”). This First Amendment amends the Patent License Agreement by and between Cerulean and Foundation dated August 31, 2007 (the “Agreement”). Capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Agreement

WHEREAS, Cerulean and Foundation desire to expand the definition of the Field set forth in the Agreement so as to cover additional products under development by Cerulean;

NOW, THEREFORE, in consideration of the terms and conditions hereinafter set forth, the parties agree as follows:

**AMENDMENTS**

1. Section 1.2 of the Agreement is hereby amended to read in its entirety as follows:

“Field” means, with respect to the Foundation 5214 Patent Rights, the use of a Licensed Product, which is a single pharmaceutical composition that contains within such pharmaceutical composition (a) a therapeutic or prophylactic agent and (b) one or more nano-scale or micro-scale compartments containing either (i) a different therapeutic and/or prophylactic agent or (ii) a different formulation of the agent described in (a), for the treatment and/or prevention of disease in humans. For the avoidance of doubt, the Field, with respect to the Foundation 5214 Patent Rights, does not include the use of a Licensed Product which is a physical mixture of two separate pharmaceutical compositions, each containing a single therapeutic or prophylactic agent.”

“Field” means, with respect to the Foundation 5431 Patent Rights, the use of a Licensed Product, which is a single nanoparticle composition that contains within such nanoparticle composition (a) one or more therapeutic or prophylactic agents or one or more different formulations or release profiles of the same agent and (b) either (i) a polyethylene glycol moiety which is associated with a lipid, surfactant, polymer, drug, prodrug or other material included in the nanoparticle composition or (ii) a molecule, as described in the Foundation 5431 Patent Rights, which improves the physical stability of a taxane in the nanoparticle composition, for the treatment and/or prevention of disease in humans.



2. In consideration of the expansion of the Field, Cerulean will pay to Foundation, within [\*\*] days of the First Amendment Effective Date, a one-time, nonrefundable payment of [\*\*] U.S. Dollars (US\$[\*\*]).

3. Except for the amendment set forth herein, all other terms of the conditions of the Agreement will remain in full force and effect.

**IN WITNESS WHEREOF**, the parties have caused this First Amendment to be executed by their duly authorized representatives.

**CERULEAN PHARMA INC.**

**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF  
NEW YORK**

By: /s/ Alan Crane

Alan Crane  
Chief Executive Officer  
February 6, 2009

By: /s/ Robert J. Genco

Robert J. Genco  
Vice Provost  
February 9, 2009

**SECOND AMENDMENT**  
**to**  
**PATENT LICENSE AGREEMENT**  
**between**  
**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK**  
**and**  
**CERULEAN PHARMA INC.**

This Second Amendment to Patent License Agreement (“Second Amendment”), effective as of July 20, 2010 (“Second Amendment Effective Date”), is by and between The Research Foundation of State University of New York, a non-profit corporation organized and existing under the laws of the State of New York (“Foundation”) and Cerulean Pharma Inc. (f/k/a Tempo Pharmaceuticals, Inc.), a Delaware corporation, with an address at 840 Memorial Drive, Cambridge, Massachusetts 02139 (“Cerulean”). This Second Amendment amends the Patent License Agreement by and between Cerulean and Foundation dated August 31, 2007, as amended by First Amendment to Patent License Agreement dated February 9, 2009 (the “Agreement”). Capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Agreement.

WHEREAS, the Foundation 5431 Patent Rights have been unintentionally abandoned by Foundation;

NOW, THEREFORE, in consideration of the terms and conditions hereinafter set forth, the parties agree as follows:

**AMENDMENTS**

1. Foundation agrees to use commercially reasonable efforts to reinstate the Foundation 5431 Patent Rights. Cerulean shall not be charged for any Patent Costs incurred by Foundation in respect of its efforts to reinstate the Foundation 5431 Patent Rights.
2. Until such time as the Foundation 5431 Patent Rights are reinstated, if at all, all payments due Foundation by Cerulean under the Agreement shall be suspended. If and when the Foundation 5431 Patent Rights are reinstated, Foundation shall promptly provide Cerulean with written evidence of such reinstatement. Foundation shall then be entitled to invoice Cerulean for all suspended payments and Cerulean shall pay such invoice within [\*\*] days of the receipt of such invoice. If Foundation’s application for reinstatement of the Foundation 5431 Patent Rights is denied, Foundation shall promptly inform Cerulean in writing and Cerulean shall then have the right to terminate its rights to the Foundation 5431 Patent Rights or the entire Agreement, in each case, immediately upon prior written notice to Foundation.
3. In the event that (a) the Foundation 5431 Patent Rights are reinstated and (b) there exists a Related Infringement involving an infringement of the Foundation 5431 Patent Rights, all payments due Foundation by Cerulean in respect of Licensed Products covered by the Foundation 5431 Patent Rights shall be suspended. If such Related Infringement is resolved in favor of Foundation and/or Cerulean, Cerulean shall pay all suspended payments to Foundation within [\*\*] days after the resolution occurs. If such Related Infringement is resolved in favor of

the alleged third party infringer because such third party is able to defend the allegation of infringement based on the fact that such third party practiced the Foundation 5431 Patent Rights during the period of their abandonment, no further payments shall be due Foundation by Cerulean under the Agreement in respect of Licensed Products covered by the Foundation 5431 Patent Rights. If such Related Infringement is resolved in the favor of the alleged third party infringer for a reason other than the reason set forth in the foregoing sentence, Cerulean shall pay all suspended payments to Foundation within [\*\*] days after the resolution occurs.

4. Except for the amendment set forth herein, all other terms of the conditions of the Agreement will remain in full force and effect

**IN WITNESS WHEREOF**, the parties have caused this Second Amendment to be executed by their duly authorized representatives.

**CERULEAN PHARMA INC.**

**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF  
NEW YORK**

By: /s/ Jean Silveri

By: /s/ Woodrow Maggard

\_\_\_\_\_  
Jean Silveri  
Senior Vice President, General Counsel  
July 27, 2010

\_\_\_\_\_  
Woodrow Maggard  
Associate Vice Provost  
July 20, 2010

**THIRD AMENDMENT**  
**to**  
**PATENT LICENSE AGREEMENT**  
**between**  
**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK**  
**and**  
**CERULEAN PHARMA INC.**

This Third Amendment to Patent License Agreement (“Third Amendment”), effective as of December 17, 2012 (“Third Amendment Effective Date”), is by and between The Research Foundation of State University of New York, a non-profit corporation organized and existing under the laws of the State of New York (“Foundation”) and Cerulean Pharma Inc. (f/k/a Tempo Pharmaceuticals, Inc.), a Delaware corporation, with an address at 840 Memorial Drive, Cambridge, Massachusetts 02139 (“Cerulean”). This Third Amendment amends the Patent License Agreement by and between Cerulean and Foundation dated August 31, 2007, as amended by First Amendment to Patent License Agreement dated February 9, 2009, and as amended by the Second Amendment to the Patent License Agreement dated July 20, 2010 (the “Agreement”). Capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Agreement.

WHEREAS, Cerulean has experienced scale-up delays that will prevent it from meeting certain milestones within the deadlines specified in the Agreement;

WHEREAS, Cerulean has requested an extension of those deadlines so that it can remain in compliance with the terms and provisions of the Agreement;

WHEREAS, Foundation and Cerulean desire to modify the aforementioned Agreement for the mutual benefit of both Parties,

NOW, THEREFORE, in consideration of the terms and conditions hereinafter set forth, the parties agree as follows:

**AMENDMENTS**

1. Section 3.3 is hereby amended to read in its entirety as follows:

3.3. **Royalties on Net Sales.** During the Term, Cerulean will pay Foundation a running product royalty on annual Net Sales of Licensed Products (“Product Royalty”) as follows. With respect to Licensed Products whose manufacture, use or sale is covered by a Valid Claim of the Foundation 5431 Patent Rights but not a Valid Claim of the Foundation 5214 Patent Rights, the royalty rate will be [\*\*]% of Net Sales, whether the sales are made by Cerulean and its Affiliates or by Sublicensees. With respect to Licensed Products whose manufacture, use or sale is covered by a Valid Claim of the Foundation 5214 Patent Rights, whether or not also covered by a Valid Claim of the Foundation 5431 Patent Rights, the royalty rate will be [\*\*]% of Net Sales, whether the sales are made by Cerulean and its Affiliates or by Sublicensees.

If Cerulean sublicenses to a third party any of the Foundation Patent Rights in order to allow such third party to practice Foundation Patent Rights in conjunction with Cerulean's other intellectual property in the Field as permitted under Article 5, Cerulean will not be obligated to pay Foundation a percentage of the sublicensing revenues received by it in connection with such sublicense; provided, however, that Cerulean will be obligated to pay the Product Royalty, as specified above, on annual Net Sales of Licensed Products made by Sublicensees.

In the event that Cerulean is required to license any patent rights from a third party in order to have the freedom to operate under the Foundation Patent Rights, Cerulean shall be entitled to deduct, from the Product Royalties due Foundation, as specified above, [\*\*] percent ([\*\*]%) of the amounts due the third party under such license, provided that, in any calendar quarter, such deduction shall not exceed [\*\*] percent ([\*\*]%) of the total Product Royalty that would otherwise be due Foundation, as specified above.

2. Section 3.4 is hereby amended to read in its entirety as follows:

3.4 **Milestone Payments.** Cerulean will pay Foundation the following non-refundable, non-creditable milestone payments within [\*\*] days after Cerulean's, or its Affiliate's or Sublicensee's achievement, of each of the following milestones:

Milestone	Payment if event is achieved by Cerulean or Affiliate:	Payment if event is achieved by Sublicensee:
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]

Each milestone payment will be payable only once, at the time that such milestone is first achieved for the first Licensed Product to reach such milestone.

If a milestone is combined with another milestone that is normally expected to be a later development or regulatory step, then the milestone that was expected to occur later will be deemed to have been achieved at the same time as such earlier milestone is achieved, and the corresponding payment for both milestones will be due. For example, if [\*\*], Cerulean will pay Foundation the sum of the milestone payments due for [\*\*].

If a milestone is skipped or avoided by advancing to what would normally be expected to be a later development or regulatory step, then the milestone that was expected to occur earlier will be deemed to have been achieved at the same time as such later milestone is achieved, and the corresponding payment for both milestones will be due.

3. Section 4.2 is hereby amended to read in its entirety as follows:

4.2 Cerulean, whether directly or through Affiliates, Subcontractors or Sublicensees, will diligently proceed with the research, development, manufacture, use and sale of Licensed Products and will make them readily available on commercially reasonable terms once introduced into the marketplace. Such diligence will be subject to the following diligence milestones:

<u>Milestone No.</u>	<u>Milestone</u>	<u>Completion Date</u>
1	[**]	[**]
2	[**]	[**]
3	[**]	[**]
4	[**]	[**]
5	[**]	[**]

Cerulean will notify Foundation in writing within [\*\*] days of the achievement of any of the [\*\*] milestones set forth above. Achievement of the [\*\*] milestones shall be reported as part of the report required under Section 7.4.

4. Except for the amendment set forth herein, all other terms of the conditions of the Agreement will remain in full force and effect.

5. This Third Amendment may be executed in two or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. Further, either Party's signature to a copy of this Third Amendment will be deemed a signature to, and may be attached to, any other identical copy of the Third Amendment. Facsimile, scanned or emailed signatures will be as binding and effective as original signatures.

**IN WITNESS WHEREOF**, the parties have caused this Third Amendment to be executed by their duly authorized representatives.

**CERULEAN PHARMA INC.**

**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF  
NEW YORK**

By: /s/ Jean Silveri

By: /s/ Woodrow Maggard

Jean Silveri  
Senior Vice President, General Counsel  
December 17, 2012

Woodrow Maggard  
Associate Vice Provost  
December 18, 2012

**FOURTH AMENDMENT**  
**to**  
**PATENT LICENSE AGREEMENT**  
**between**  
**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK**  
**and**  
**CERULEAN PHARMA INC.**

This Fourth Amendment to Patent License Agreement (“Fourth Amendment”), effective as of September 1, 2013 (“Fourth Amendment Effective Date”), is by and between The Research Foundation for State University of New York, a non-profit corporation organized and existing under the laws of the State of New York (“Foundation”) and Cerulean Pharma Inc. (f/k/a Tempo Pharmaceuticals, Inc.), a Delaware corporation, with an address at 840 Memorial Drive, Cambridge, Massachusetts 02139 (“Cerulean”). This Fourth Amendment amends the Patent License Agreement by and between Cerulean and Foundation dated August 31, 2007, as amended by First Amendment to Patent License Agreement dated February 9, 2009, and as amended by the Second Amendment to the Patent License Agreement dated July 20, 2010, and as amended by Third Amendment to Patent License Agreement dated December 17, 2012 (the ‘Agreement’). Capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Agreement.

WHEREAS, Cerulean has experienced a non-confirming batch of product that will prevent it from meeting certain milestones within the deadlines specified in the Agreement;

WHEREAS, Cerulean has requested an extension of those deadlines so that it can remain in compliance with the terms and provisions of the Agreement;

WHEREAS, Foundation and Cerulean desire to modify the aforementioned Agreement for the mutual benefit of both Parties,

NOW, THEREFORE, in consideration of the terms and conditions hereinafter set forth, the parties agree as follows:

**AMENDMENTS**

1. Section 3.2 is hereby amended to read in its entirety as follows:

3.2 **License Maintenance Fee.** Cerulean will pay Foundation the following non-refundable, non-creditable license maintenance fees:

<b>License Maintenance Fee (US\$) upon each anniversary of the Effective Date :</b>	<b>Beginning on:</b>	<b>Ending on:</b>
[**]	The [**] of the Effective Date	The [**] of the Effective Date
[**]	The [**] of the Effective Date	[**]

2. Section 3.4 is hereby amended to read in its entirety as follows:

**3.4 Milestone Payments.** Cerulean will pay Foundation the following non-refundable, non-creditable milestone payments within [\*\*] days after Cerulean's, or its Affiliate's or Sublicensee's achievement, of each of the following milestones:

Milestone	Payment if event is achieved by Cerulean or Affiliate:	Payment if event is achieved by Sublicensee:
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]

Each milestone payment will be payable only once, at the time that such milestone is first achieved for the first Licensed Product to reach such milestone.

If a milestone is combined with another milestone that is normally expected to be a later development or regulatory step, then the milestone that was expected to occur later will be deemed to have been achieved at the same time as such earlier milestone is achieved, and the corresponding payment for both milestones will be due. For example, if [\*\*], Cerulean will pay Foundation the sum of the milestone payments due for [\*\*].

If a milestone is skipped or avoided by advancing to what would normally be expected to be a later development or regulatory step, then the milestone that was expected to occur earlier will be deemed to have been achieved at the same time as such later milestone is achieved, and the corresponding payment for both milestones will be due.

3. Section 4.2 is hereby amended to read in its entirety as follows:

**4.2** Cerulean, whether directly or through Affiliates, Subcontractors or Sublicensees, will diligently proceed with the research, development, manufacture, use and sale of Licensed Products and will make them readily available on commercially reasonable terms once introduced into the marketplace. Such diligence will be subject to the following diligence milestones:

Milestone No.	Milestone	Completion Date
1	[**]	[**]
2	[**]	[**]
3	[**]	[**]
4	[**]	[**]
5	[**]	[**]



Cerulean will notify Foundation in writing within [\*\*] days of the achievement of any of the [\*\*] milestones set forth above. Achievement of the [\*\*] milestones shall be reported as part of the report required under Section 7.4.

4. Except for the amendment set forth herein, all other terms of the conditions of the Agreement will remain in full force and effect.

5. This Fourth Amendment may be executed in two or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. Further, either Party's signature to a copy of this Fourth Amendment will be deemed a signature to, and may be attached to, any other identical copy of the Fourth Amendment. Facsimile, scanned or emailed signatures will be as binding and effective as original signatures.

**IN WITNESS WHEREOF**, the parties have caused this Fourth Amendment to be executed by their duly authorized representatives.

**CERULEAN PHARMA INC.**

**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF  
NEW YORK**

By: /s/ Jean Silveri

By: /s/ Woodrow Maggard

\_\_\_\_\_  
Jean Silveri  
Senior Vice President, General Counsel  
September 4, 2013

\_\_\_\_\_  
Woodrow Maggard  
Associate Vice Provost  
September 4, 2013

## IT-101 AGREEMENT

THIS IT-101 AGREEMENT (“Agreement”), dated as of June 23, 2009 (the “Effective Date”), is by and between CALANDO PHARMACEUTICALS, INC., a Delaware corporation having its principal place of business at 129 North Hill Avenue, Pasadena, California 91106 (hereinafter referred to as “Calando”), and CERULEAN PHARMA INC., a Delaware corporation, having its principal place of business at 161 First Street, Cambridge, Massachusetts 02142 (hereinafter referred to as “Cerulean”).

### INTRODUCTION

WHEREAS, Calando has developed IT-101 (as defined below); and

WHEREAS, Cerulean is engaged in the research, development and commercialization of nanopharmaceuticals and desires to develop and commercialize IT-101 upon the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Calando and Cerulean agree as follows:

### SECTION 1. DEFINITIONS

As used in this Agreement, the following terms, whether used in the singular or plural, shall have the following meanings:

1.1 “Affiliate” means any entity which directly or indirectly controls, is controlled by or is under common control with another entity. For purposes of this Section 1.1, “control” means (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or shares entitled to vote for the election of directors and (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest with the power to direct the management and policies of such non-corporate entities. The Parties acknowledge that, in the case of certain entities organized under the laws of certain countries, the maximum percentage ownership permitted by law for a foreign investor may be less than fifty percent (50%), and in such case such lower percentage shall be substituted in the preceding sentence; provided, that such foreign investor has the power to direct the management and policies of such entity.

1.2 “Annual Net Sales” means the worldwide aggregate Net Sales of the Licensed Product during a calendar year.

1.3 “Arrowhead” means Arrowhead Research Corporation, a Delaware corporation.

1.4 “Assigned IP” means (a) the Assigned Patent Rights; (b) the Patent Files (as defined in the Platform Agreement); (c) all inventions disclosed in the Assigned Patent Rights (other than those disclosed as prior art of a Third Party); and (d) the right to recover for past infringement of the Assigned Patent Rights.

1.5 “Assigned Patent Rights” means the Patent Rights set forth in Exhibit A and all Counterparts thereof.

1.6 “Calando Indemnitees” means Calando, its Affiliates, and the agents, directors, officers and employees of Calando and its Affiliates.

1.7 “Calando Liabilities” means any and all liabilities or obligations (whether known or unknown, absolute or contingent, liquidated or unliquidated, due or to become due and accrued or unaccrued, and whether claims with respect thereto are asserted before or after the Effective Date) of Calando.

1.8 “Caltech” means California Institute of Technology.

1.9 “Caltech Agreement” means that License Agreement between Caltech and Calando (formerly known as Insert Therapeutics, Inc.), dated May 22, 2000, as amended on December 10, 2001, January 13, 2003 and June 19, 2009.

1.10 “Caltech Joint Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit B and all Counterparts thereof.

1.11 “Caltech Sole Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit C and all Counterparts thereof.

1.12 “Cerulean Indemnitees” means Cerulean, its Affiliates, and the agents, directors, officers and employees of Cerulean and its Affiliates.

1.13 “Change of Control” means (a) the closing of a merger, tender offer, share exchange, reorganization, consolidation or other similar transaction involving Cerulean in which the persons who beneficially own Cerulean’s voting securities immediately prior to such transaction would, immediately after such transaction, beneficially own less than fifty percent (50%) of the voting securities of the surviving entity; or (b) a sale or other transfer to a Third Party of all or substantially all of Cerulean’s assets or business relating to this Agreement. For purposes hereof, “beneficial ownership” shall have the meaning provided in Rule 13d-3 under the Securities Exchange Act of 1934.

1.14 “Clinical Trial” means any clinical trial of the Licensed Product or any other administration of the Licensed Product prior to receipt of a Regulatory Approval.

1.15 “Collective Patent Rights” means the Assigned Patent Rights and the Licensed Patent Rights.

1.16 “Combination Therapy” means the Licensed Product and a separate pharmaceutical product sold by Cerulean or its Affiliates in combination for co-administration.

1.17 “Commercially Reasonable Efforts” means, with respect to the Licensed Product, taking such actions, exerting such effort and employing such resources as would normally be taken, exerted or employed by a comparably-sized company in the biotechnology industry for a product of similar market potential at a similar stage of its product life as the Licensed Product,

taking into account the phase of development of, and technical risks relating to, the product, the development and proprietary positions of third parties, the regulatory structure involved, the likely cost of goods, the competitiveness and size of the relevant marketplace, and the potential profitability of the product, when utilizing sound and reasonable scientific, business and medical practice and judgment.

1.18 “Confidential Information” means, with respect to a Party (the “Disclosing Party”) all proprietary information, patentable or otherwise, of the Disclosing Party (whether owned by the Disclosing Party or disclosed by a Third Party to the Disclosing Party under an obligation of confidentiality) which is disclosed by or on behalf of such Party to the other Party (the “Receiving Party”) pursuant to and in contemplation of this Agreement, including information pertaining to chemical substances, therapeutic agents, pharmaceutical compositions, drug delivery systems, formulations, processes, techniques, methodologies, data, reports, know-how, expertise, sources of supply, patent positioning and business plans. Confidential Information of the Disclosing Party includes “Proprietary” Information of the “Discloser”, each as defined in the Prior Confidentiality Agreement. The elements of Assigned IP described in Sections 1.4(a), (b) and (c) shall be treated as Confidential Information of Cerulean, except to the extent that they have been or are later disclosed by the publication of any patent or patent application. Any sublicense agreements disclosed by a Party to the other Party pursuant to Section 3.2 shall be treated as Confidential Information of the Party entering into such sublicense agreement.

1.19 “Control” or “Controlled” means, with respect to an entity and an item of Know-How or any intellectual property right, the possession of the right (whether by ownership, license or otherwise (other than pursuant to a license granted under this Agreement)) by such entity or its Affiliates, to assign, or grant a license, sublicense or other right to or under, such Know-How or intellectual property right as provided for herein without violating the terms of any agreement or other arrangement with any Third Party.

1.20 “Counterparts” means:

(a) with respect to a patent, the following items, collectively: any patent applications from which such patent issued, and all patents and patent applications described in clause (b) with respect to each such patent application;

(b) with respect to a patent application (including any provisional application), the following items, collectively: (i) all divisionals, continuations and continuations-in-part of such patent application; (ii) any patents (including certificates of correction) issuing from such patent application or any patent application described in clause (i); (iii) all patents and patent applications based on, corresponding to or claiming the priority date(s) of any of the patents and patent applications described in clauses (i) or (ii); (iv) any substitutions, extensions (including supplemental protection certificates), registrations, confirmations, reissues, re-examinations and renewals of any of the patents described in clauses (ii) or (iii); and (v) foreign counterparts of any of the foregoing.

1.21 “Covered” means, with respect to the Licensed Product and a particular patent, that, but for a license granted to a Party under a Valid Claim included in such patent, or, with respect to an Assigned Patent Right, but for the assignment of such patent, the manufacture, use, offer for sale, sale or importation of the Licensed Product would infringe such Valid Claim.

1.22 “Cyclodextrin System” means any cyclodextrin-based polymer drug delivery system developed by Calando prior to the Effective Date and any improvements thereto developed during the Term.

1.23 “FDA” means the United States Food and Drug Administration or any successor agency thereto.

1.24 “Field” means the treatment and/or prevention of disease in humans.

1.25 “First Commercial Sale” means, with respect to the Licensed Product in a country, the first bona fide sale of the Licensed Product following the first receipt of a Regulatory Approval for the Licensed Product to permit use or consumption of the Licensed Product by the general public in such country. Transfers of Licensed Product for Clinical Trial purposes shall not be considered a First Commercial Sale.

1.26 “HIPAA” means the Health Information Portability and Accountability Act, as amended.

1.27 “IND” means a United States investigational new drug application or its equivalent or any corresponding application of another country.

1.28 “IT-101” means the product described on Exhibit E.

1.29 “IT-101 IND” means IND 71694.

1.30 “Know-How” means any ideas, concepts, discoveries, developments, information and inventions, whether or not patentable, including materials, products, laboratory, pre-clinical and clinical data, expertise, know-how, processes, techniques, any other scientific or technical information and Regulatory Documentation.

1.31 “Knowledge” means (a) with respect to Calando, the actual knowledge of the following individuals (together with any knowledge that a person in such person’s position would be expected to obtain given the exercise of reasonably prudent scientific and business diligence in accordance with the standards of companies in the biotechnology industry): [\*\*] (collectively, the “Calando Representatives”); and (b) with respect to Cerulean, the actual knowledge of the following individuals (together with any knowledge that a person in such person’s position would be expected to obtain given the exercise of reasonably prudent scientific and business diligence in accordance with the standards of companies in the biotechnology industry): [\*\*].

1.32 “Licensed IP” means, collectively, the Licensed Know-How and Licensed Patent Rights.

1.33 “Licensed Know-How” means all Know-How Controlled by Calando as of the Effective Date or during the Term which both (a) relates to the Cyclodextrin System and/or

Calando's research and development of Other Licensed Products or IT-101 and (b) is necessary or reasonably useful to (i) conduct research and development on the Cyclodextrin System, including making improvements thereto, or (ii) research, develop, make, have made, use, market, offer to sell, distribute, sell and/or import the Other Licensed Products or IT-101. Without limiting the generality of the foregoing, Licensed Know-How shall include all Know-How developed, applied or acquired by Calando prior to the Effective Date that (A) pertains to the use of the Cyclodextrin System, (B) is a process for manufacturing the cyclodextrin polymer, or precursors thereto, employed in the Cyclodextrin System, (C) is a process for conjugating or complexing therapeutic agents to the cyclodextrin polymer employed in the Cyclodextrin System, or (D) is data generated by Calando in its research and development of the Other Licensed Products or IT-101.

1.34 "Licensed Patent Rights" means all Patent Rights Controlled by Calando as of the Effective Date or during the Term which both (a) relate to the Cyclodextrin System and/or Calando's research and development of Other Licensed Products or IT-101 and (b) are necessary or reasonably useful to (i) conduct research and development on the Cyclodextrin System, including making improvements thereto, or (ii) research, develop, make, have made, use, market, offer to sell, distribute, sell and/or import the Other Licensed Products or IT-101. Without limiting the generality of the foregoing, Licensed Patent Rights shall include the Caltech Joint Patent Rights, the Caltech Sole Patent Rights and the RNAi Patent Rights. For the sake of clarity, the Licensed Patent Rights exclude the Assigned Patent Rights.

1.35 "Licensed Product" means IT-101 formulated for intravenous, intraarterial, intrathecal and/or intraperitoneal therapy.

1.36 "NDA" means a United States new drug application or its equivalent or any corresponding application of another country.

1.37 "Net Sales" means, with respect to the Licensed Product, the gross amount invoiced by Cerulean or its Affiliates on sales or other dispositions of the Licensed Product to a Third Party less the sum of (a) commercially reasonable trade, cash and quantity discounts, (b) credit or allowances given or made for recall, rejection or return of previously sold Licensed Products, (c) commercially reasonable rebates, chargebacks or retroactive price reductions, (d) out of pocket charges for insurance, postage, handling, freight and other transportation costs which are invoiced by Cerulean or its Affiliates, (e) government-mandated rebates and (f) customs, duties, surcharges, sales, transfer and other excise taxes levied on the sale, transportation, delivery or use of such Licensed Product, including any tax such as a value added or similar tax or government charge, borne by the seller thereof, other than franchise or income tax of any kind whatsoever.

Net Sales shall not include any transfers of the Licensed Product for clinical trial purposes or any transfers of reasonable quantities of the Licensed Product as samples or as donations.

Net Sales shall not include any transfer between Cerulean and any of its Affiliates for resale. If Cerulean or an Affiliate sells the Licensed Product to a distributor or other Third Party, Net Sales shall be based on the gross amount invoiced by Cerulean or the Affiliate from the sale of Licensed Product to such distributor or Third Party.

If Cerulean or any of its Affiliates makes a sale of the Licensed Product for other than monetary value, such Licensed Product shall be deemed sold hereunder. The gross revenues to be included in Net Sales for any such deemed sales shall be the average price of “arms length” sales by Cerulean and its Affiliates during the calendar quarter in which such deemed sale occurs or, if no such “arms length” sales occurred during such period, during the last calendar quarter in which such “arms length” sales occurred.

If the Licensed Product is sold in combination with another pharmaceutical product as part of a Combination Therapy in a country, then, for the purpose of calculating royalties owed under this Agreement on sales of such Licensed Product, Net Sales shall be the lesser of:

Net Sales of such Licensed Product in such country, or

the product of:

Net Sales of such Combination Therapy (calculated applying the definition of Net Sales hereunder to such Combination Therapy in the same manner as applied to Licensed Product) in such country, and

the fraction  $A/(A+B)$ , where A is the average invoice price of such Licensed Product in such country, and B is the average invoice prices of the other pharmaceutical product(s) in such Combination Therapy in such country; provided, however, that, if in a specific country the other pharmaceutical product(s) in such Combination Therapy are not sold separately in such country but the Licensed Product is sold separately in such country, the fraction shall be  $A/C$ , where A is the average invoice price of the Licensed Product in such country and C is the invoice price of the Combination Therapy; provided, further, however, that, if in a specific country the Licensed Product is not sold separately in such country but the other pharmaceutical products are sold separately in such country, the fraction shall be  $C-B/C$ , where B is the average invoice price of the other pharmaceutical product(s) in the Combination Therapy in such country and C is the invoice price of the Combination Therapy in such country; and provided, further, however, that, if in a specific country neither the Licensed Product nor any of the other pharmaceutical products are sold separately in such country, then the fraction shall be negotiated in good faith by the Parties.

1.38 “Other Licensed Product” means any product licensed to Cerulean pursuant to the Platform Agreement.

1.39 “Party” means Calando or Cerulean; “Parties” means Calando and Cerulean.

1.40 “Patent Right” means any patent application (including any provisional application) or patent, and any Counterpart thereof.

1.41 “Phase 1 Clinical Trial” means a human clinical trial that is intended to initially evaluate the safety, tolerance or pharmacological or antigenic effects of the Licensed Product in human subjects, or that is otherwise described in 21 CFR 312.21(a) or its foreign counterpart.

1.42 “Phase 2 Clinical Trial” means a human clinical trial that is intended to initially evaluate the dosing and effectiveness of the Licensed Product, or that is otherwise described in 21 CFR 312.21(b) or its foreign counterpart.

1.43 “Phase 3 Clinical Trial” means a human clinical trial that is prospectively designed to demonstrate statistically whether the Licensed Product is safe and effective to prevent or treat a particular indication in a manner sufficient to obtain Regulatory Approval to market the Licensed Product, or that is otherwise described in 21 CFR 312.21(c) or its foreign counterpart.

1.44 “Platform Agreement” means the Platform Agreement entered into by the Parties on the Effective Date.

1.45 “Prior Confidentiality Agreement” means the Mutual Confidentiality Agreement between the Parties dated February 4, 2009.

1.46 “Regulatory Approval” means, with respect to the Licensed Product in a country or regulatory jurisdiction, any and all approvals (including any applicable governmental price and reimbursement approvals), licenses, registrations, or authorizations of the relevant Regulatory Authority necessary for the manufacture, use, storage, import, transport, promotion, marketing and sale of the Licensed Product in such country, including approvals of NDAs.

1.47 “Regulatory Authority” means any applicable government regulatory authority involved in granting approvals for the marketing and/or pricing of a pharmaceutical product in a country or regulatory jurisdiction, including the FDA and foreign equivalents thereof.

1.48 “Regulatory Documentation” means, with respect to IT-101, the IT-101 IND, all information and documentation supporting the IT-101 IND, and all information or documentation filed, or otherwise communicated to the FDA, in support of, or otherwise in connection with, the IT-101 IND, including all laboratory, preclinical, clinical and manufacturing data, information and reports; drug dossiers; master files; reports; records; investigator brochures; protocols; informed consents; sponsor and investigator forms; amendments; correspondence and other documentation.

1.49 “Relevant Agreement” means each agreement, other than a confidentiality agreement, between Calando and an Affiliate of Calando or a Third Party currently in effect, whether or not relating to the Licensed Product, including any agreement regarding evaluation, research, development, collaboration, material transfer, manufacture, license, joint venture, non-competition, clinical trial, lease of real property or equipment, line of credit, bank loan or other loan.

1.50 “Required Third Party Payments” means payments (including upfront payments, annual maintenance fees, milestones and earned royalties) made by Cerulean or any of its Affiliates to a Third Party to license Know-How or Patent Rights in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import the Licensed Product in the Field.

1.51 “Requisite Debt Holder Consent and Release” means that each holder of a promissory note of which Calando is the maker (each a “Note” and, collectively, the “Notes”) has irrevocably, in writing, (a) consented to the transactions contemplated by this Agreement and (b) released Cerulean and its Affiliates from, and agreed not to assert against Cerulean or its Affiliates or any of their respective assets (including the Licensed IP, Assigned IP and the



Inventory), any Liens, claims, rights or other interests it has or may have (i) in connection with or as a result of the transactions contemplated hereby, (ii) in, against or relating to any of the Licensed IP, Assigned IP and the Inventory and/or (iii) relating to the Notes or any stock into which the Notes can be converted.

1.52 “Requisite Stockholder Approval” means the approval of the license of the Licensed Patent Rights and Licensed Know-How and sale of the Assigned IP and the Inventory by Calando to Cerulean as contemplated by this Agreement by (a) a majority of the votes represented by the outstanding shares of capital stock of Calando entitled to vote thereon and (b) a majority of the votes represented by the outstanding shares of capital stock of Calando entitled to vote thereon, other than shares of such capital stock held by Arrowhead.

1.53 “RNAi Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit D and all Counterparts thereof.

1.54 “Sublicense Income” means all amounts received by Cerulean or any of its Affiliates to the extent attributable to a license or sublicense granted to a Third Party of any of the Assigned Patent Rights, Licensed Patent Rights or Licensed Know-How (such Third Party, a “Sublicensee”), including upfront payments, annual maintenance fees, milestone payments (including for development, performance and sales milestones) and earned royalties, but:

(a) amounts received by Cerulean or its Affiliates as payments for performing research, development (other than development milestone payments referenced in the foregoing paragraph of this Section 1.54), manufacturing or commercialization activities undertaken by Cerulean or any of its Affiliates for, or in collaboration with, such Sublicensee will be excluded; provided, that such deduction to Sublicense Income is an amount no greater than the fully-burdened cost for Cerulean or its Affiliates in performing such activities and all out-of-pocket costs paid by Cerulean or its Affiliates to Third Parties in connection with such activities;

(b) amounts received by Cerulean or its Affiliates from such Sublicensee as the purchase price for Cerulean’s or any of its Affiliates’ debt or equity securities will be excluded; provided, that, with respect to any such securities which are publicly traded on any securities exchange or NASDAQ, such deduction to Sublicense Income is an amount no greater than the fair market value of such debt or equity securities;

(c) if such Sublicensee will also pay an earned royalty on its sale of a Licensed Product, then amounts paid by such Sublicensee to Cerulean or its Affiliates as a transfer price to purchase the relevant Licensed Product or any component thereof will be excluded; and

(d) if such Sublicensee will not also pay an earned royalty on its sale of a Licensed Product, then amounts paid by such Sublicensee to Cerulean or its Affiliates as a transfer price to purchase the relevant Licensed Product or any component thereof will be excluded, but only up to the actual cost of goods of such Licensed Product or component; provided, however, that, for the sake of clarity, any portion of such transfer price greater than the actual cost of goods shall not be so excluded.

1.55 “Third Party” means any person other than the Parties and their Affiliates.

1.56 "Valid Claim" means a claim of an unexpired issued patent which has not been withdrawn, cancelled or disclaimed nor held invalid or unenforceable by a court of competent jurisdiction in an unappealed or unappealable decision.

1.57 Other Defined Terms. The word "person" means any entity or individual. Each of the following definitions is set forth in the section of this Agreement indicated below:

<u>Definition</u>	<u>Section</u>
Arrowhead Guarantee	2.3(c)
Bankruptcy Code	3.3
Bill of Sale	2.3(e)
Breaching Party	12.2
Calando Representatives	1.32
Caltech Side Letter	2.2(d)
Clinical Trial Investigator	9.2(l)
Clinical Trial Site	9.2(k)
Disclosing Party	1.18
Escrow Agent	8.7(a)
Escrow Agreement	8.7(a)
Expenditure	5.4(c)
FTE Hour	4.1(b)
Full Access Notebooks	8.7(b)
Initial Payment	5.1
Inventory	2.1(a)
Inventory Price	2.1(a)
[**]	2.1(a)
Joint IP	7.1
Lien	2.2(g)

	<u>Definition</u>	<u>Section</u>
Losses		10.1
Non-Breaching Party		12.2
Non-Prosecuting Party		7.2(d)
Note(s)		1.51
Partial Access Notebooks		8.7(c)
Prosecuting Party		7.2(d)
Receiving Party		1.18
Required Coverage		2.2(q)
Restricted Access Notebooks		8.7(d)
Royalty Payment Date		5.6
Safety Concern		12.1
Sale Event		13.1
Sublicensee		1.55
Term		12.1

## SECTION 2. ASSET SALE AND TRANSFER

### 2.1 Inventory.

(a) Calando hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Cerulean, and Cerulean hereby purchases from Calando, all right, title and interest in and to, (i) [\*\*] of IT-101 drug substance, for an aggregate purchase price of [\*\*] U.S. Dollars (US \$[\*\*]), (ii) the remaining [\*\*] vials of IT-101 drug product produced for the [\*\*] and having a manufacturing date of [\*\*], for an aggregate purchase price of [\*\*] U.S. Dollars (US \$[\*\*]), (iii) [\*\*] vials of IT-101 drug product produced for the [\*\*], to be transferred [\*\*] to Cerulean, (iv) [\*\*] vials of IT-101 drug product produced for the [\*\*] and having a manufacturing date of [\*\*], to be transferred [\*\*] to Cerulean, (v) [\*\*] vials of IT-101 drug product produced for the [\*\*] and having a manufacturing date of [\*\*], to be transferred [\*\*] to Cerulean, and (vi) the IT-101 drug substance and drug product with which [\*\*] or its relevant Affiliate (“[\*\*]”) is conducting stability studies, and the retain samples of IT-101 drug substance and drug product being held by [\*\*], each to be transferred [\*\*] to Cerulean (such material,

collectively, the "Inventory"). The total purchase price of Five Hundred Thirty-Five Thousand One Hundred Fifty-Six U.S. Dollars (US \$535,156) (the "Inventory Price") shall be paid by Cerulean to Calando on the Effective Date via wire transfer of immediately available funds to an account designated by Calando.

(b) The Parties agree and acknowledge that Cerulean's payment for the Inventory is in addition to the Initial Payment and is inclusive of all excise, sales, use, transfer and other taxes and duties (if any) imposed with respect to the Inventory or its sale by any governmental authority (all of which shall be the responsibility of, and will be paid by, Calando).

(c) Title to and possession of the Inventory will be delivered to Cerulean, free and clear of any encumbrances, on the Effective Date in its current location and condition at the premises of Almac Group LTD or one of its Affiliates ("Almac") in Durham, North Carolina. Cerulean shall be responsible for all expenses and fees related to the storage, removal and transportation of the Inventory from and after the Effective Date, while Calando shall be responsible for all expenses and fees related to the storage, removal and transportation of the Inventory prior to the Effective Date. Risk of loss or damage, liability for, and responsibility to insure the Inventory will pass to Cerulean on the Effective Date.

2.2 Calando Closing Conditions. Unless waived by Cerulean, as of the Effective Date, Calando shall have:

(a) obtained the Requisite Stockholder Approval and the Requisite Debt Holder Consent and Release;

(b) delivered to Cerulean a certificate of good standing of Calando in its jurisdiction of organization and the various foreign jurisdictions in which it is qualified, certified charter documents and a certificate as to the incumbency of officers and the adoption of authorizing resolutions;

(c) provided Cerulean with a guarantee and indemnification from Arrowhead, in form and substance reasonably acceptable to Cerulean, in which Arrowhead (i) guarantees Calando's performance under this Agreement, (ii) makes the same representations and warranties to Cerulean as Calando makes to Cerulean under Section 9.1 or clauses (h)-(j) of Section 9.2, and (iii) agrees to indemnify Cerulean to the same extent as Calando indemnifies Cerulean pursuant to Section 10.2 from any Losses relating to or in connection with a Third Party claim arising out of any breach by Arrowhead of its representations or warranties as described in clause (ii), and for which indemnification Calando and Arrowhead shall be jointly and severally liable to Cerulean and the Cerulean Indemnitees (the "Arrowhead Guarantee");

(d) provided to Cerulean a letter agreement executed by Calando and Caltech in the form attached as Exhibit F (the "Caltech Side Letter");

(e) executed and delivered to Cerulean a bill of sale substantially in the form attached hereto as Exhibit G (the "Bill of Sale") and such other instruments of conveyance as Cerulean may reasonably request in order to effect the sale, transfer, conveyance and assignment to Cerulean of valid ownership to the Inventory;

(f) recertified the Inventory prior to the Effective Date in accordance with the testing procedures proscribed by Cerulean, and provided Cerulean with the results thereof;

(g) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, pursuant to which the appropriate Affiliate of Almac acknowledges that the ownership of the Inventory has been transferred to Cerulean and releases such Inventory from any claim, liability, mortgage, pledge, security interest, encumbrance, license, charge, encumbrance or other lien of any kind (whether arising by contract or by operation of law) (each, a "Lien");

(h) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, pursuant to which the appropriate Affiliate of [\*\*] acknowledges that the ownership of the Inventory with which it is conducting stability studies and the ownership of the retain samples included in the Inventory have been transferred to Cerulean, releases such Inventory from all Liens and transitions to Cerulean all rights with respect to the stability studies it is conducting on the Inventory and with respect to such retain samples;

(i) made available to Cerulean copies of all laboratory notebooks, raw data, summary data and reports pertaining to the research, development or manufacture of the Licensed Product, it being understood that the terms and conditions of Section 8.7 shall apply with respect to the laboratory notebooks;

(j) supplied Cerulean with letters of access, in form and substance reasonably acceptable to Cerulean, addressed to all Third Party contractors and vendors identified by Cerulean pertaining to the research, development or manufacture of the Licensed Product, it being understood that the letter of access for [\*\*] shall be supplied subsequent to the Effective Date;

(k) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, evidencing the proper shut-down or transitioning of all sites at which Clinical Trials were conducted by Calando on IT-101 or which were contracted by Calando for the conduct of Clinical Trials on IT-101, including documentation regarding the proper destruction or return of all IT-101 drug product from the shut-down sites, it being understood that the documentation regarding the proper shut-down of the [\*\*] site and the destruction or return of all IT-101 drug product from the [\*\*] site shall be supplied subsequent to the Effective Date;

(l) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, evidencing the proper shut-down or transitioning of all clinical research organizations performing services in connection with the Clinical Trials for IT-101, it being understood that the documentation regarding the proper shut-down of [\*\*] shall be supplied subsequent to the Effective Date;

(m) filed with the FDA the annual report due in May 2009 with respect to the Clinical Trials for IT-101 and provided Cerulean with a true and complete copy of all Regulatory Documentation generated on or before the Effective Date with respect to IT-101, it being understood that any Regulatory Documentation possessed solely by [\*\*] shall be delivered subsequent to the Effective Date;

(n) submitted documentation, substantially in the form of Exhibit H, to the FDA to transfer ownership of the IT-101 IND to Cerulean; and

(o) purchased from a member of the [\*\*] a tail to Calando's clinical trial insurance, in an amount of [\*\*] U.S. Dollars (US \$[\*\*]) combined single limit, to cover all liabilities arising from the Clinical Trials of IT-101 conducted by or on behalf of Calando on or before the Effective Date (the "Required Coverage"), it being understood that evidence of Required Coverage, in the form of a certificate of insurance, shall be supplied subsequent to the Effective Date.

2.3 Cerulean Closing Conditions. As of the Effective Date, Cerulean shall have:

(a) delivered to Calando a certificate of good standing of Cerulean in its jurisdiction of organization and the various foreign jurisdictions in which it is qualified and a certificate as to the incumbency of officers and the adoption of authorizing resolutions;

(b) executed and delivered to Calando the CalTech Side Letter; and

(c) executed and delivered to Calando the Bill of Sale.

2.4 Calando Post-Closing Covenants. As promptly as practicable after the Effective Date, at the expense of Calando, Calando shall:

(a) deliver to Cerulean a final report for the Phase 1 Clinical Trial for IT-101 which is fully compliant with all applicable laws and regulations and otherwise meets industry standards for reports of such type and which is in a format for filing with the FDA; and

(b) supply Cerulean with all clinical data from the Schwartz Gynecologic Oncology site, with the documentation regarding the proper shut-down of PharmaLinkFHI, Inc. and the Schwartz Gynecologic Oncology site, with the documentation regarding the destruction or return of all IT-101 drug product from the Schwartz Gynecologic Oncology site, with the letter of access for [\*\*], and with any Regulatory Documentation obtained by Calando from [\*\*] subsequent to the Effective Date.

2.5 Regulatory Documentation. From and after the Effective Date, Cerulean shall own, and Calando hereby assigns to Cerulean all right, title and interest in and to, all Regulatory Documentation regarding the Licensed Product and all intellectual property rights therein.

2.6 Non-Assumption of Liabilities. Notwithstanding anything to the contrary, Cerulean shall not assume, or become responsible for, and Calando shall remain responsible for, the Calando Liabilities.

### SECTION 3. LICENSES

3.1 Grant to Cerulean. Calando hereby grants to Cerulean an exclusive (even as to Calando, but subject to Section 12.2(b)), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual (subject to each Party's termination rights in Section 12), royalty-bearing, worldwide license, with the right to grant sublicenses, under the Licensed Patent Rights and under all intellectual property rights in the Licensed Know-How, solely in order to (a) research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, and (b) use, copy, modify and distribute the Licensed Know-How for such purposes.

3.2 Sublicenses. All sublicenses granted pursuant to Section 3.1 shall be consistent with the terms and conditions of this Agreement and Cerulean shall incorporate terms and conditions into its sublicense agreements sufficient to enable Cerulean to comply with this Agreement. Cerulean shall furnish Calando with a copy of each executed sublicense agreement within [\*\*] business days after its execution.

3.3 Section 365(n) of the Bankruptcy Code. All rights and licenses granted under or pursuant to any section of this Agreement are and shall otherwise be deemed to be for purposes of Section 365(n) of the Bankruptcy Code licenses of rights of "intellectual property" as defined in Section 101(35A) of the United States Bankruptcy Code (Title 11, U.S.C.), as amended (the "Bankruptcy Code"). The Parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. Upon the bankruptcy of a Party, the non-bankrupt Party shall further be entitled to a complete duplicate of, or complete access to, any such intellectual property, and such, if not already in its possession, shall be promptly delivered to the non-bankrupt Party, unless the bankrupt Party elects to continue, and continues, to perform all of its obligations under this Agreement.

3.4 Patent Marking. Cerulean shall mark the appropriate U.S. patent number(s) on Licensed Products made or sold in the United States in accordance with all applicable government laws, rules and regulations.

### SECTION 4. POST-CLOSING ASSISTANCE AND COVENANTS

#### 4.1 Technology Transfer.

(a) Within the first [\*\*] months following the Effective Date, Calando shall, and shall cause its employees to provide to Cerulean, upon Cerulean's request, such scientific, technical and other assistance as is reasonably necessary for Cerulean to exploit the Licensed Know-How; provided, however, that this Section 4.1(a) shall not require Calando to maintain employment of any employees; provided, further, that Calando shall use commercially reasonable efforts to assist Cerulean in entering into employment or consulting arrangements (at Cerulean's sole cost) with any former employees of Calando. In addition, Calando shall reasonably assist Cerulean in interacting with Calando's Third Party contractors and vendors to facilitate Cerulean's ability to develop the Licensed Product and exploit the Licensed Know-How; provided, that Calando makes no representations or warranties as to such Third Party contractors' or vendors' intentions to conduct business with Cerulean following the Effective Date. To the extent that Cerulean hires or engages the services of any former employee of Calando or any Third Party contractor or vendor of Calando for purposes contemplated under this Agreement, Calando hereby waives any obligations of confidentiality or non-use or any non-

competition restrictions imposed on such employees, contractors or vendors to the extent that they pertain to the Licensed Product or use of the Cyclodextrin System in connection with the Licensed Product.

(b) Cerulean shall reimburse Calando (i) for the assistance described in Section 4.1(a) at the rate of [\*\*] U.S. Dollars (US \$[\*\*]) for each hour of scientific, technical or other work in providing such assistance (each, an “FTE Hour”) and (ii) for all reasonable out-of-pocket expenses incurred by Calando in providing such assistance, to the extent such assistance and expenses have been approved by Cerulean in writing in advance of incurrence. Within [\*\*] days after the end of each calendar month during such [\*\*] month period, Calando shall provide to Cerulean a report of the number of FTE Hours actually devoted, and the expenses actually incurred, by Calando for such assistance during such just-ended calendar month, and an invoice for the amount to be reimbursed by Cerulean as provided hereunder. Cerulean shall pay such invoice within [\*\*] days after receipt. For the sake of clarity, there shall be no double payments for any assistance which may be provided under both this Agreement and the Platform Agreement.

(c) Calando shall keep true and accurate books of accounts and other records containing all information and data which may be necessary to ascertain and verify the amounts payable under this Section 4.1. During the first [\*\*] months after the Effective Date, Cerulean shall have a [\*\*] right to have an independent certified public accountant inspect such books and records of Calando. Any such independent certified accountant shall be reasonably acceptable to Calando, shall execute a standard form of confidentiality agreement with Calando, and shall be permitted to share with Cerulean solely its findings with respect to the accuracy of the amounts reported as payable under this Section 4.1.

#### 4.2 Caltech Agreements.

(a) Calando shall not amend, restate, alter, waive or otherwise change any of the terms and conditions of the Caltech Agreement or Caltech Side Letter without the prior written approval of Cerulean, which approval shall not be unreasonably withheld, conditioned or delayed. Calando shall provide Cerulean with a copy of any proposed or executed amendment, restatement, alteration, waiver or other change of the terms and conditions of the Caltech Agreement or Caltech Side Letter. Further, Calando shall not assign (other than in connection with a Sale Event) or terminate the Caltech Agreement or Caltech Side Letter without the prior written approval of Cerulean, which approval shall not be unreasonably withheld, conditioned or delayed.

(b) Calando shall use commercially reasonable efforts to satisfy all of its obligations under and to take all steps necessary to maintain in full force and effect the Caltech Agreement or Caltech Side Letter. Calando shall provide Cerulean with written notice of any claim of a breach under, or any threat or notice of termination of, the Caltech Agreement or Caltech Side Letter.

4.3 Further Assurances. At any time and from time to time hereafter, each Party at the other Party’s request and without further consideration, shall execute and deliver, or cause to be duly executed and delivered (including by its Affiliates and employees), such further



instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents and instruments, as may be necessary or as the requesting Party may reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes hereof, or to better assure and confirm the rights and remedies of the Parties under this Agreement, including to more effectively transfer, convey and assign to Cerulean, and to confirm Cerulean's title to, all of the Inventory, to put Cerulean in actual possession and control thereof, to assist Cerulean in exercising all rights with respect thereto and to carry out the purpose and intent of this Agreement. Other than those obligations expressly set forth herein, Cerulean shall not assume or agree to perform, pay or discharge, and Calando shall remain unconditionally liable, for the Calando Liabilities.

**SECTION 5. FEES AND ROYALTIES**

5.1 **Fees.** Cerulean shall pay Calando a one-time, non-refundable, non-creditable purchase and license fee in the amount of Seven Hundred Fifty Thousand U.S. Dollars (US \$750,000) (the "**Initial Payment**"). In addition, Cerulean shall reimburse Calando for [\*\*] U.S. Dollars (\$[\*\*]), which amount represents [\*\*] percent ([\*\*]%) of the cost of the Required Coverage. The foregoing amounts shall be distributed as follows: (a) [\*\*] U.S. Dollars and [\*\*] Cents (US \$[\*\*]) shall be paid by Cerulean directly to the applicable Third Parties as set forth in Exhibit I, on behalf of Calando, on the Effective Date; (b) [\*\*] U.S. Dollars and [\*\*] Cents (US \$[\*\*]) shall be paid by Cerulean to Calando via wire transfer of immediately available funds to an account designated by Calando, on the Effective Date; and (c) [\*\*] U.S. Dollars (US \$[\*\*]) shall be paid by Cerulean to Calando via wire transfer of immediately available funds to an account designated by Calando within [\*\*] days of Calando's having fulfilled the post-closing conditions set forth in Section 2.4.

5.2 **Development Milestones.**

(a) If the Licensed Product is developed by Cerulean or an Affiliate of Cerulean and reaches the following development milestones, Cerulean shall pay the applicable non-refundable milestone payment set forth below, subject to Section 5.2(b), within [\*\*] days of the occurrence of such event to Calando via wire transfer of immediately available funds to an account designated by Calando:

<b><u>Milestone Event:</u></b>	<b><u>Milestone Payment:</u></b>
[**]	[**] U.S. Dollars (US \$[**])
[**]	[**] U.S. Dollars (US \$[**])
[**]	[**] U.S. Dollars (US \$[**])

(b) Such milestone payments shall be made only if, upon the occurrence of such milestone event, a Valid Claim of a Collective Patent Right exists in any country of the world. Each such payment shall be made no more than once. All development milestone payments made with respect to the Licensed Product shall be fully credited to all royalties due under Section 5.5 with respect to the Licensed Product.

### 5.3 Sales Milestones.

(a) If the Licensed Product is developed by Cerulean or an Affiliate of Cerulean and reaches the following sales thresholds, Cerulean shall pay the applicable non-refundable, non-creditable milestone payment set forth below, subject to Section 5.3(b), within [\*\*] days after the occurrence of such event to Calando via wire transfer of immediately available funds to an account designated by Calando:

<b>Milestone Event:</b>	<b>Milestone Payment:</b>
(i) Annual Net Sales of [**] U.S. Dollars (US \$[**])	[**] U.S. Dollars (US \$[**])
(ii) Annual Net Sales of [**] U.S. Dollars (US \$[**])	[**] U.S. Dollars (US \$[**])

(b) Such milestone payments shall be made only if, upon the occurrence of such milestone event, a Valid Claim of a Collective Patent Right exists in any country of the world. Each such payment shall be made no more than once.

### 5.4 Sublicense Income.

(a) With respect to Licensed Product developed and sold by a Sublicensee, Cerulean shall pay to Calando, subject to Section 5.4(b), a percentage of all Sublicense Income received from such Sublicensee (on a Sublicensee-by-Sublicensee basis), which percentage shall be determined in accordance with the table below depending on the state of development of the Licensed Product at the time that Cerulean first provides or receives draft terms of a sublicensing arrangement with such Sublicensee; provided, however, that, if discussions between Cerulean and such Sublicensee terminate and later restart at a different state of development, then the percentage shall be based on the later state of development of the Licensed Product:

<b>Development State:</b>	<b>Percentage of Sublicense Income:</b>
[**]	[**]%
[**]	[**]%
[**]	[**]%
[**]	[**]%
[**]	[**]%

(b) Such payments shall be made only if, at the time of Cerulean's or its Affiliate's receipt of Sublicense Income, a Valid Claim of a Collective Patent Right exists in any country of the world. The percentage of Sublicense Income due Calando for earned royalties

(but not for upfront payments, milestones or maintenance fees) will be capped at the royalty rates under Section 5.5 that would apply if such sales were made by Cerulean or an Affiliate of Cerulean.

5.5 “Expenditure” means the fully-burdened cost and all out-of-pocket costs incurred by Cerulean and its Affiliates in connection with all activities associated with the Licensed Product during their development of the Licensed Product. For purposes of calculating the fully burdened cost of Cerulean and its Affiliates, Cerulean shall use an annual FTE rate of \$[\*\*] (for [\*\*] hours of full-time equivalent work), which rate shall be subject to increase annually based on the percentage increase in the Consumer Price Index. For purposes of clarity, in no event shall Cerulean be entitled to count as part of its Expenditures diligence or transaction costs (including legal fees) expended on, or with respect to, IT-101 prior to the Effective Date.

5.6 Royalties.

(a) Base Rate.

(i) For each Licensed Product sold by Cerulean or an Affiliate of Cerulean, Cerulean shall pay to Calando (subject to Sections 5.2(b), 5.5(b), 5.5(c) and 5.5(d)) the following tiered earned royalties on Annual Net Sales of each Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is, or would be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right:

<u>Annual Net Sales Tiers:</u>	<u>Royalty Rate:</u>
The portion of Annual Net Sales which is less than or equal to US \$[**]	[**]%
The portion of Annual Net Sales which is greater than US \$[**]	[**]%

(ii) For each Licensed Product sold by Cerulean or an Affiliate of Cerulean, Cerulean shall pay to Calando (subject to Sections 5.2(b), 5.5(b), 5.5(c) and 5.5(d)) the following tiered earned royalties on Annual Net Sales of each Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is not, and would not be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right:

<u>Annual Net Sales Tiers:</u>	<u>Royalty Rate:</u>
The portion of Annual Net Sales which is less than or equal to US \$[**]	[**]%
The portion of Annual Net Sales which is greater than US \$[**]	[**]%

(b) Royalty Term.

(i) Royalties on the Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is, or would be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right shall be payable until the expiration of such Valid Claim.

(ii) Royalties on the Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is not, and would not be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right shall be payable if such sale occurs within the first ten (10) years after the First Commercial Sale of the Licensed Product in such country; provided, however, that, at the time of such manufacture, use or sale, a Valid Claim of a Collective Patent Right exists in any country of the world.

(iii) Once the royalty obligations hereunder end with respect to the Licensed Product in a country of sale, Cerulean shall have a fully paid-up, non-exclusive, perpetual license, under the Licensed Patent Rights, and under all intellectual property rights in the Licensed Know-How, to research, develop, make, have made, use, market, offer to sell, distribute, sell and import the Licensed Product in any country in order to sell the Licensed Product in the Field in such country and to use, copy, modify and distribute the Licensed Know-How for such purposes.

(c) The obligation to pay royalties shall be imposed only once, at the point of the first sale, with respect to a particular unit of Licensed Product.

(d) Cerulean shall be entitled to deduct from the royalty payments it makes pursuant to Section 5.5(a) with respect to the Licensed Product **[\*\*]** percent (**[\*\*]**%) of Required Third Party Payments with respect to the Licensed Product; provided, that, in no event shall a deduction under this Section 5.5(d) reduce any royalty payment payable by Cerulean pursuant to Section 5.5(a) by more than **[\*\*]** percent (**[\*\*]**%). Cerulean shall be entitled to carry forward any unused amounts against future royalty payments payable by Cerulean hereunder with respect to the Licensed Product, until such unused amounts are fully offset.

(e) Calando shall remain solely responsible for any payments owed under the Caltech Agreement.

**5.7 Reports and Payment**. Commencing with the calendar quarter in which the First Commercial Sale of a Licensed Product occurs in any country in the world and continuing during the Term, Cerulean shall deliver to Calando, within **[\*\*]** days after the end of each calendar quarter (the "Royalty Payment Date"), (a) a written report showing Cerulean's computation of Sublicense Income due under this Agreement for such calendar quarter, (b) a written report showing Cerulean's computation of royalties due under this Agreement for such calendar quarter on a country-by-country basis and (c) payment of the Sublicense Income and royalties shown to be due under this Agreement for such calendar quarter via wire transfer of immediately available funds to an account designated by Calando. With respect to sales of Licensed Products invoiced in United States Dollars, the sales and royalties payable shall be expressed in United States Dollars. With respect to sales of Licensed Products invoiced in a currency other than United States Dollars, the sales and royalties payable shall be expressed in their United States Dollar equivalent calculated using the applicable conversion rates for buying United States Dollars

published by The Wall Street Journal on the last business day of the calendar quarter to which the royalty report relates. All Sublicense Income and royalty payments shall be made in United States Dollars.

5.8 Right to Setoff. If Calando and/or Arrowhead fails to indemnify a Cerulean Indemnitee as contractually provided for in Section 10.2, then Cerulean may, at its option and upon written notice to Calando, setoff such amount from any amounts owed by Cerulean to Calando pursuant to Sections 5.2, 5.3, 5.4 or 5.5 of this Agreement.

5.9 Tax Withholding. Cerulean shall use reasonable and legal efforts to reduce tax withholding payments to be made to Calando. Notwithstanding the foregoing, if Cerulean concludes that tax withholdings under the laws of any country are required with respect to payments to Calando, Cerulean shall withhold the required amount and pay it to the appropriate governmental authority. In any such case, Cerulean shall promptly provide Calando with original receipts or other evidence reasonably desirable and sufficient to allow Calando to document such tax withholdings for purposes of claiming foreign tax credits and similar benefits.

5.10 Records. Cerulean shall keep, and shall require its Affiliates and Sublicensees to keep, true and accurate books of accounts and other records containing all information and data which may be necessary to ascertain and verify the royalties and other amounts payable by Cerulean under this Agreement. During the Term and for a period of [\*\*] years thereafter, Calando shall have the right from time to time (not to exceed [\*\*]) (a) to have an independent certified public accountant inspect such books and records of Cerulean and its Affiliates and (b) to require that Cerulean have an independent certified public accountant inspect such books and records of the Sublicensees. Any such independent certified public accountant shall be reasonably acceptable to Cerulean, shall execute a standard form of confidentiality agreement with Cerulean, shall be permitted to share with Cerulean its findings, and shall be permitted to share with Calando solely its findings with respect to the accuracy of the amounts reported as payable under this Agreement. If such audit determines that the royalties paid to Calando pursuant to Section 5.5(a) for any such audited period were understated, then Cerulean shall, within [\*\*] days of receipt of the audit report, pay to Calando the entirety of such understated amount plus interest accruing from the Royalty Payment Date until the date that such understated amount is paid at an interest rate equal to the lesser of (i) [\*\*] percent ([\*\*]%) per annum or (ii) the highest interest rate allowable by law. If such audit determines that the royalties paid to Calando pursuant to Section 5.5 for any such audited period were understated by an amount equal to or greater than [\*\*] percent ([\*\*]%) of what was owed, then Cerulean shall reimburse Calando for any reasonable out-of-pocket costs of such audit paid by Calando.

## SECTION 6. DILIGENCE

6.1 Diligence. Cerulean, through itself, its Affiliates or sublicensees, shall use Commercially Reasonable Efforts to develop the Licensed Product in the Field and, following the First Commercial Sale of the Licensed Product in a particular country, to make the Licensed Product commercially available in such country. In addition, if, at any time prior to the second (2nd) anniversary of the Effective Date, there occurs a Change of Control of Cerulean, then Cerulean (or its successor, as applicable), together with its Affiliates and sublicensees, shall expend a minimum of Seven Hundred Fifty Thousand U.S. Dollars (US \$750,000) to research,

develop, manufacture and/or commercialize the Licensed Product, during each Diligence Period; provided, however, that, in lieu of such expenditure, Cerulean (or its successor, as applicable) may pay such amount (or any portion of such amount not so expended) to Calando within [\*\*] days after the end of such Diligence Period. Such amount shall be pro-rated for any Diligence Period which is less than twelve months in length. “Diligence Period” means the twelve (12) month period beginning upon such Change of Control, and each succeeding twelve (12) month period thereafter, but no Diligence Period shall begin after, or extend past, the second (2nd) anniversary of the Effective Date.

6.2 Performance Reports. Cerulean agrees to provide [\*\*] performance reports to Calando within [\*\*] calendar days of a written request by Calando which shall be no more frequent than [\*\*]. These performance reports shall describe all research and development efforts for the Licensed Product since the last performance report. After the [\*\*], such [\*\*] reports shall no longer be required.

6.3 Conformity with Caltech Agreement. If, and to the extent, that Caltech, pursuant to Section 5.2 of the Caltech Agreement, requires Calando to report on the progress of introducing commercial Licensed Products in the United States, Calando shall promptly (but in any event within [\*\*] business days) report such requirement to Cerulean and Cerulean shall promptly (within [\*\*] days thereafter) provide a written report thereof to Calando and Calando shall promptly (but in any event within [\*\*] business days) provide such report to Caltech.

6.4 Compliance with Laws. Each Party shall, and shall ensure that its Affiliates and sublicensees shall, comply with all applicable laws in exercising their rights and fulfilling their obligations under this Agreement.

## SECTION 7. INTELLECTUAL PROPERTY

7.1 Ownership. As between the Parties, (a) all Know-How developed, conceived or reduced to practice after the Effective Date solely by employees and consultants of Cerulean or its Affiliates, and all intellectual property rights in the foregoing, shall be owned solely by Cerulean, and (b) all Know-How developed, conceived or reduced to practice after the Effective Date solely by employees and consultants of Calando or its Affiliates, and all intellectual property rights in the foregoing, shall be owned solely by Calando. While the Parties do not anticipate that any Know-How will be jointly developed, if any Know-How is developed, conceived or reduced to practice after the Effective Date jointly by employees and consultants of Cerulean or its Affiliates, on the one hand, and Calando or its Affiliates, on the other hand, such Know-How and all intellectual property rights therein (such Know-How and intellectual property rights, collectively, “Joint IP”), shall be owned jointly by Cerulean and Calando, on the basis of an undivided interest. Subject to the licenses granted to Cerulean pursuant to Section 3.1 and pursuant to the Platform Agreement, each Party shall have the right to fully exploit the Joint IP, and to sublicense such Party’s rights under the Joint IP, without a duty to account to the other Party. If any patentable Joint IP is conceived or reduced to practice, the Parties shall negotiate in good faith reasonable rights and responsibilities of the Parties to prosecute and enforce such Joint IP. Inventorship, for the purposes of this Section 7.1, shall be determined by the Parties in good faith in accordance with United States patent laws.

## 7.2 Patent Prosecution.

(a) Assigned Patent Rights. Cerulean shall have the sole right, at its own expense and in its own name, to prepare, file, prosecute and maintain the Assigned Patent Rights. If Cerulean determines to discontinue the prosecution or maintenance of any patent application or patent within such Assigned Patent Rights, Cerulean shall promptly notify Calando, sufficiently in advance of any deadlines to ensure that no rights with respect thereto are lost, and thereupon, Calando shall have the right, at its own expense, to prosecute and maintain any such Patent Right.

(b) RNAi Patent Rights. Calando shall have the sole right, at its own expense and in its own name, to prepare, file, prosecute and maintain the RNAi Patent Rights.

(c) Caltech Patent Rights. The Parties agree and acknowledge that, with respect to the Caltech Joint Patent Rights and the Caltech Sole Patent Rights, as set forth in the Caltech Agreement, Caltech has the right to prosecute such Patent Rights, Calando has the right to comment on such prosecution and Calando pays the patent costs thereof, but that:

(i) Calando shall use reasonable efforts to cause Caltech to promptly provide Calando with copies of all material correspondence received from any patent counsel or patent authority pertaining to such Patent Rights;

(ii) Calando shall promptly provide Cerulean with copies of all correspondence received by Calando from Caltech from any patent counsel or patent authority pertaining to such Patent Rights;

(iii) Calando shall provide Cerulean, sufficiently in advance of any deadline for Cerulean to comment, with copies of all patent applications and other submissions and correspondence with any patent counsel or patent authority pertaining to such Patent Rights, and shall use reasonable efforts to ensure that Caltech gives due consideration to Cerulean's comments; and

(iv) in the event of the bankruptcy or other insolvency of Calando or a termination, for any reason, of the Caltech Agreement, as between the Parties, the provisions of the Caltech Side Letter shall supersede any conflicting provisions of this Section 7.2(c) and the Caltech Agreement.

(d) Other Licensed Patent Rights. Calando shall have the initial right, at its own expense and in its own name, to prepare, file, prosecute and maintain any Licensed Patent Rights other than the Caltech Joint Patent Rights, Caltech Sole Patent Rights and RNAi Patent Rights. If Calando determines not to prepare or file any patent application covering any Licensed Know-How or determines to discontinue the prosecution or maintenance of any patent application or patent within such Licensed Patent Rights, Calando shall promptly notify Cerulean, sufficiently in advance of any deadlines to ensure that no rights with respect thereto are lost, and thereupon, Cerulean shall have the right, at its own expense, to prepare, file, prosecute and maintain any such Patent Right. With respect to the preparation, filing, prosecution and maintenance of such Licensed Patent Rights:

(i) the Party not preparing, filing, prosecuting or maintaining such patent or patent application (the "Non-Prosecuting Party") shall, at the reasonable request of the other Party (the "Prosecuting Party"), assist and cooperate in the filing, prosecution and maintenance of such Patent Rights;

(ii) the Prosecuting Party shall provide the Non-Prosecuting Party, sufficiently in advance of any deadline for the Non-Prosecuting Party to comment, with copies of all patent applications and other submissions and correspondence with any patent counsel or patent authority pertaining to such Patent Rights;

(iii) the Prosecuting Party shall give due consideration to the Non-Prosecuting Party's comments, but the Prosecuting Party shall have the final say in determining whether or not to incorporate such comments;

(iv) each Party shall promptly provide the other with copies of all correspondence received from any patent counsel or patent authority pertaining to such Patent Rights; and

(v) if Cerulean is preparing, filing, prosecuting or maintaining Licensed Patent Rights, Cerulean may fully credit any out-of-pocket expenses incurred by Cerulean in connection therewith against any other payments due by Cerulean hereunder.

### 7.3 Enforcement.

(a) Notice. Each Party shall promptly (but within no more than [\*\*] days) report in writing to the other Party during the Term any suspected infringement of the Collective Patent Rights (including any "patent certification" filed in the United States under 21 U.S.C. §355(b)(2) or 21 U.S.C. §355(j) (2) or similar provisions in other jurisdictions), any declaratory judgment, opposition, or similar action alleging the invalidity, unenforceability or non-infringement of the Collective Patent Rights, or any suspected unauthorized use or misappropriation of any Licensed Know-How or of the other Party's Confidential Information, of which it becomes aware, and shall provide the other Party with all available evidence supporting such suspected infringement, action or unauthorized use or misappropriation.

(b) Enforcement of Assigned Patent Rights. Cerulean shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Assigned Patent Rights.

(c) Enforcement of RNAi Patent Rights. Calando shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the RNAi Patent Rights.

(d) Enforcement of Licensed Patent Rights other than RNAi Patent Rights.

(i) Cerulean shall have the first right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Licensed Patent Rights other than the RNAi Patent Rights, or using without proper authorization all or any portion of the Licensed Know-How, by researching, developing,



making, having made, using, marketing, offering to sell, distributing, selling or importing any product that falls within the scope of the definition of “Licensed Product”. Calando shall join as a party to any such suit brought by Cerulean, if requested by Cerulean, but shall be under no obligation to participate except to the extent that such participation is required as the result of being a named party to the suit. Upon Cerulean’s request, Calando shall provide reasonable assistance to Cerulean in connection therewith at no charge to Cerulean except for reimbursement of Calando’s reasonable out-of-pocket expenses (including reasonable attorneys’ fees) incurred in rendering such assistance. Any recoveries resulting from such action (whether in the form of damages, royalties, settlement payments or otherwise) shall first be applied to reimburse Cerulean for all out-of-pocket expenses incurred in connection with such proceeding (and any out-of-pocket expenses of Calando paid by Cerulean) and (A) to the extent that the remaining recovery represents lost profits, such remaining recovery shall be retained by Cerulean, with Calando entitled to receive an amount equal to the royalties that would have been due Calando on sales of the relevant Licensed Product lost by Cerulean as a result of the infringement and (B) to the extent that the remaining recovery represents punitive or other damages, Cerulean shall be entitled to [\*\*] percent ([\*\*]%) of such remaining recovery and Calando shall be entitled to [\*\*] percent ([\*\*]%) of such remaining recovery.

(ii) If, within [\*\*] days after notification of an infringement of the Licensed Patent Rights with respect to which Cerulean would have the first right to bring suit as described in Section 7.3(d)(i), Cerulean has not been successful in persuading the alleged infringer to desist and is not diligently pursuing an infringement action or suit, or has notified Calando of its intent not to bring action or suit against the alleged infringer, then Caltech or Calando may institute an action or suit against such Third Party, in accordance with their rights of priority under Sections 6.1 and 6.2 of the Caltech Agreement, subject to the following if Calando institutes such action or suit:

(A) Prior to taking any action, Calando shall confer with Cerulean and give due consideration to Cerulean’s reasons for not pursuing such alleged infringer.

(B) The action or suit shall be brought in the name of Caltech and/or Calando and Calando shall bear the entire cost of such action or suit. Calando shall promptly provide Cerulean with copies of all litigation pleadings and other documents submitted to the court.

(C) With respect to any consideration received by Calando in connection with such action or suit, Calando shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Cerulean). All remaining recovery shall be split equally between Calando and Cerulean.

(D) If it shall be necessary for Calando to join Cerulean as a party to an action or suit because Cerulean constitutes a legally indispensable party, Calando shall have the right to so join Cerulean; provided, that Calando indemnifies Cerulean for all outside costs and expenses (including reasonable attorneys fees) thereby incurred by Cerulean.

(iii) Calando shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Licensed Patent Rights other than the RNAi Patent Rights, or using without proper authorization all or any portion of the Licensed Know-How, by researching, developing, making, having made, using, marketing, offering to sell, distributing, selling or importing any product that falls within the scope of the definition of “Retained Product” (as defined in the Platform Agreement).

(iv) The Party enforcing such Licensed Patent Rights or Licensed Know-How pursuant to Section 7.3(d)(i), (ii) or (iii) shall have the sole and exclusive right to select counsel for any such suit referred and shall, except as provided herein, pay all expenses of the suit, including attorneys’ fees and court costs. Neither Party shall settle any suit described in this Section 7.3 involving rights of the other Party without obtaining the prior written consent of such other Party, which consent shall not be unreasonably withheld.

7.4 Power of Attorney. Calando hereby constitutes and appoints the President of Cerulean with full power of substitution, the true and lawful attorney-in-fact and agent of Calando, to execute, acknowledge, verify, swear to, deliver, record and file, in Calando’s or its assignee’s name, place and stead, all in accordance with the terms of this Agreement, all instruments, documents and certificates which may from time to time be required by the laws of the governmental authority to prosecute, maintain and enforce the Licensed Patent Rights other than the RNAi Patent Rights, and to prepare and file any patent applications covering Licensed Know-How, in each case to the extent Calando or its assignee has such right pursuant to this Section 7. The power of attorney granted herein will be deemed to be coupled with an interest, will survive and not be affected by the dissolution, bankruptcy or legal disability of Calando and will extend to its successors and assigns. If required, Calando shall execute and deliver to Cerulean within [\*\*] days after the receipt of a request therefor, such further designations, powers of attorney or other instruments as Cerulean will reasonably deem necessary for the purposes described in this Section 7.4.

7.5 Claimed Infringement. If a Third Party at any time provides written notice of a claim, or brings an action, suit or proceeding, against either Party or any of its Affiliates or sublicensees, claiming infringement of such Third Party’s Patent Rights or unauthorized use or misappropriation of such Third Party’s Know-How, arising out of the research, development, making, having made, use, marketing, offering to sell, distribution, sale or importation of the Licensed Product, such Party shall promptly notify the other Party of the claim or the commencement of such action, suit or proceeding, enclosing a copy of the claim and all papers served and such Party shall have the sole right and responsibility to take any action it deems appropriate with respect such claim, action, suit or proceeding.

## SECTION 8. CONFIDENTIAL INFORMATION

8.1 Treatment of Confidential Information. Each Receiving Party shall maintain in confidence the Confidential Information of the Disclosing Party and shall not disclose, divulge or otherwise communicate such Confidential Information to others, or use it for any purpose, except to exercise its rights or fulfill its obligations under this Agreement. Each Receiving Party shall exercise every reasonable precaution to prevent and restrain the unauthorized disclosure of such Confidential Information by any of its directors, officers, employees, consultants, subcontractors, sublicensees or agents.

8.2 Release from Restrictions. The provisions of Section 8.1 shall not apply to any Confidential Information of the Disclosing Party which:

(a) was known or used by the Receiving Party or any of its Affiliates prior to its date of disclosure to the Receiving Party, as demonstrated by competent evidence of the Receiving Party;

(b) either before or after the date of the disclosure to the Receiving Party is lawfully disclosed to the Receiving Party or any of its Affiliates by a Third Party rightfully in possession of, and with the right to disclose, such Confidential Information;

(c) either before or after the date of the disclosure to the Receiving Party becomes published or generally known to the public through no fault or omission on the part of the Receiving Party or its Affiliates;

(d) is required to be disclosed by the Receiving Party to comply with applicable laws or regulations, to defend or prosecute litigation or arbitration, to file for patent protection as permitted hereunder or to file for Regulatory Approval as permitted hereunder; provided, however, that (i) with respect to a disclosure to comply with laws or regulations or to defend or prosecute litigation or arbitration, then, to the extent permitted by law, the Receiving Party shall provide the Disclosing Party with prompt notice of any such requirement, and (ii) with respect to any disclosure under this clause (d), then, where available, the Receiving Party shall take reasonable and lawful actions to avoid and/or minimize the degree of such disclosure; or

(e) is independently developed by the Receiving Party or any of its Affiliates without reference to the Confidential Information of the Disclosing Party;

provided, however, that Calando may not rely on the provisions of Section 8.2(a) or (b) with respect to the Assigned IP.

8.3 Permitted Disclosure. The Receiving Party may provide the Disclosing Party's Confidential Information to the directors, employees, consultants and advisors of the Receiving Party and its Affiliates, and to its then-current and potential licensees who have a need to know such Confidential Information for purposes of the Receiving Party granting licenses or sublicenses under Collective Patent Rights or Licensed Know-How as permitted herein; provided, that such persons shall (a) execute or have executed an agreement in reasonable form whereby they agree to be bound by an obligation, or (b) be bound by ethical or fiduciary obligations, in each case to maintain the confidentiality of the Disclosing Party's Confidential Information at least to the same extent as if they were parties hereto.

8.4 Publicity. No Party shall have the right to make any public announcements with respect to this Agreement, nor publicly disclose the terms of this Agreement, without the prior written consent of the other Party, except as follows:

(a) On the first business day following the execution of this Agreement, each Party shall issue its press release attached hereto as Exhibit J.

(b) Each Party may disclose the terms of this Agreement to the extent such disclosure is required by law (including by rules or regulations of any securities exchange or NASDAQ) or to defend or prosecute litigation or arbitration; provided, that, prior to such disclosure, to the extent permitted by law or such rules or regulations, the disclosing Party promptly notifies the other Party of such requirement and gives such other Party an opportunity to comment on the disclosure to be made, the disclosing Party furnishes only those terms of this Agreement that the disclosing Party is legally required to furnish and the disclosing Party requests, and use reasonable efforts to obtain, confidential treatment of financial and other commercially sensitive terms.

(c) Each Party may make subsequent disclosures of information which has been previously publicly disclosed in accordance with this Agreement.

(d) Calando may disclose this Agreement to (i) Calando's then-current and potential Third Party licensors or licensees of the Collective Patent Rights, and (ii) Calando's then-current and potential investors and acquirers; provided, that such persons are bound to maintain the confidentiality of this Agreement to the same extent as if they were parties hereto and Calando shall not disclose the financial and other commercially sensitive terms of this Agreement to any licensee outside the Field.

(e) Cerulean may disclose this Agreement to (i) Cerulean's then-current and potential licensors or licensees of the Collective Patent Rights, and (ii) Cerulean's then-current and potential investors and acquirers; provided, that such persons are bound to maintain the confidentiality of this Agreement to the same extent as if they were parties hereto.

(f) From and after the Effective Date, Cerulean shall have the right to make and control all disclosures regarding Licensed Products.

8.5 Enforcement. The provisions of Section 8 of this Agreement are necessary for the protection of the business and goodwill of the Parties and are considered by the Parties to be reasonable for such purpose. The Receiving Party agrees that any breach of Section 8 of this Agreement may cause the Disclosing Party substantial and irreparable injury and, therefore, in the event of any such breach, in addition to other remedies which may be available, the Disclosing Party may have the right to specific performance and other injunctive and equitable relief.

8.6 Caltech Name. Except as may be required by law, Cerulean shall not, without having first obtained written approval from Caltech, use the name of Caltech, or California Institute of Technology, in any advertising or publicity material, or make any form of representation or statement which would constitute an express or implied endorsement by Caltech of any Licensed Product.

8.7 Laboratory Notebooks. The laboratory notebooks of Calando shall be made available to Cerulean upon the following terms and conditions:

(a) All original laboratory notebooks and one complete unredacted electronic copy of the original laboratory notebooks shall be archived with Escrow Associates, LLC (the "Escrow Agent") pursuant to the terms and conditions of the Three-Party Escrow Agreement (also known as the Technology Escrow Agreement) attached hereto as Exhibit K (the "Escrow Agreement"). The master inventory list included as Exhibit D to the Escrow Agreement references each such laboratory notebook, including its assigned number and the inventor to whom the laboratory notebook was assigned, and whether such laboratory notebook is a Full Access Notebook, Partial Access Notebook or Restricted Access Notebook. Such deposit with the Escrow Agent shall be made by Calando on or prior to the Effective Date and shall be released to Cerulean in accordance with the terms of the Escrow Agreement.

(b) In addition, Cerulean shall be given, and granted full access to, one complete unredacted electronic copy of the [\*\*] laboratory notebooks of Calando that: (i) do not primarily relate to nucleic acids; (ii) contain disclosure related to the Assigned IP or Licensed IP; and (iii) do not contain proprietary information of Third Parties (such notebooks, the "Full Access Notebooks").

(c) Cerulean shall be given, and granted full access to, one redacted electronic copy of the [\*\*] laboratory notebooks of Calando that: (i) do not primarily relate to nucleic acids; (ii) contain disclosure related to the Assigned IP or Licensed IP; and (iii) contain proprietary information of Third Parties that is not disclosure related to the Assigned IP or Licensed IP (such notebooks, the "Partial Access Notebooks"). Calando shall delete from such copy of such laboratory notebooks the proprietary information of Third Parties that is not disclosure related to the Assigned IP or Licensed IP.

(d) Cerulean shall not be given or granted full access to any of the [\*\*] laboratory notebooks that are primarily related to nucleic acids and which may or may not contain proprietary information of Third Parties (such notebooks, the "Restricted Access Notebooks").

(e) Notwithstanding the foregoing clauses (c) and (d), one complete unredacted electronic copy of the originals of each of the Full Access Notebooks, Partial Access Notebooks and Restricted Access Notebooks shall be delivered to Cerulean on the Effective Date. Such copies of the Partial Access Notebooks and Restricted Access Notebooks shall be maintained in a secure location and access to such copies shall be limited at all times to the most senior scientific officer of Cerulean, the most senior internal legal counsel of Cerulean and outside counsel of Cerulean. Cerulean, acting through such representatives, shall have the right to refer to and use such copies of the Partial Access Notebooks and Restricted Access Notebooks solely: (i) for regulatory or governmental purposes pertaining to the Cyclodextrin System or any Licensed Product; (ii) in connection with any litigation pertaining to the Cyclodextrin System or any Licensed Product; (iii) for the maintenance, prosecution or defense of the Assigned IP or Licensed IP; (iv) to resolve scientific or technical questions regarding the redacted laboratory notebooks; and (v) to make corrections in the event that any disclosures related to the Assigned IP or Licensed IP were improperly or incorrectly redacted.

(f) Cerulean's use of the Full Access Notebooks, whether the originals released by the Escrow Agent or the copies provided hereunder, shall be unrestricted.

(g) In no event shall Cerulean have any right, nor is any right granted by Calando to Cerulean, to exploit any proprietary information of Third Parties that is not Assigned IP or Licensed IP and is contained in any of the laboratory notebooks of Calando.

(h) Title to and ownership of the Full Access Notebooks, Partial Access Notebooks and Restricted Access Notebooks shall remain with Calando.

## SECTION 9. WARRANTIES

9.1 Mutual Warranties. Each Party warrants that:

(a) it is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation, and it has full power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted and as it is contemplated to be conducted by this Agreement;

(b) it has the full right, power and authority to enter into this Agreement and to grant the rights and licenses granted by it under this Agreement;

(c) as of the Effective Date, there is no existing or, to its Knowledge, threatened action, suit, claim, litigation, investigation, proceeding or controversy pending before any court, administrative agency or other governmental authority with respect to (i) the subject matter of this Agreement, or (ii) its right to enter into and perform its obligations under this Agreement;

(d) as of the Effective Date, it has taken all necessary corporate and stockholder action on its part to authorize the execution and delivery of this Agreement and the performance of its obligations under this Agreement;

(e) this Agreement has been duly executed and delivered on behalf of it, and constitutes a legal, valid, binding obligation, enforceable against it in accordance with the terms hereof, subject to the general principles of equity and to bankruptcy, insolvency, moratorium and other similar laws affecting the enforcement of creditors' rights generally;

(f) as of the Effective Date, all necessary consents, approvals and authorizations of all governmental authorities and other persons required to be obtained by it in connection with the execution and delivery of this Agreement and the performance of its obligations under this Agreement have been obtained;

(g) the execution and delivery of this Agreement and the performance of its obligations hereunder do not (i) conflict with, or constitute a default under, any of its contractual obligations, (ii) conflict with or violate any provision of its Certificate of Incorporation, by-laws or other organizational documents; or (iii) violate any judgment, order, writ, injunction, decree, statute, rule or regulation of any court, administrative agency or other governmental authority applicable to it or any of its properties or assets; and

(h) it has no liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement.

9.2 Additional Calando Warranties. Calando warrants to Cerulean that, as of the Effective Date:

(a) Good Title. Immediately prior to the Effective Date and the assignments pursuant to Section 2, (i) Calando was the sole, true and lawful owner of, and had good title to, the Inventory, free and clear of all Liens of any kind; (ii) Calando is not, and has not been, bound by any policies or agreements under which the Inventory has been or will be assigned to anyone other than Cerulean; (iii) Calando has the right to sell and transfer to Cerulean good, clear record and title to the Inventory, free and clear of all Liens of any kind; and (iv) upon execution and delivery to Cerulean of this Agreement and the instruments of conveyance referred to in Section 2.2(e), Cerulean will become the sole, true and lawful owner of, and receive good and marketable title to, the Inventory, free and clear of all Liens.

(b) Inventory. All Inventory was manufactured in accordance with cGMP and the specifications set therefor by Calando and conform to such specifications. Except for retain samples of IT-101 held at, and the drug substance and drug product that are subject to the stability studies being conducted by, [\*\*], no drug substance or drug product form of IT-101 is stored or exists anywhere other than at Almac.

(c) Government Rights. Calando, its Affiliates and Caltech have neither sought, applied for nor received any support, funding, resources or assistance from any governmental authority in connection with the development, conception or reduction to practice of the Licensed IP or the research, development, manufacturing, having made, use, marketing, offering to sell, distribution, sale or importation of the Licensed Product or any facilities or equipment used in connection therewith.

(d) Completeness. Exhibits A, B, C and D collectively list all Patent Rights owned, solely or jointly, by Calando or its Affiliates and/or Controlled by Calando that relate to the Cyclodextrin System or the Licensed Product, in each case immediately prior to the assignment of the Assigned Patent Rights pursuant to Section 2.2 of the Platform Agreement. Such exhibits accurately list, for each such Patent Right: the applicable serial number, filing date, title, jurisdiction in which filing was made, issue date and owners(s).

(e) Patent Validity. To Calando's Knowledge, (i) all issued patents included in the Collective Patent Rights are valid and enforceable; (ii) no claim has been made against Calando, its Affiliates or the Third Party co-owner thereof alleging that any issued patent included in the Collective Patent Rights is invalid or unenforceable; (iii) all assignments of such Patent Rights have been properly executed and recorded; (iv) all issuance, renewal, maintenance and other payments that are or have become due with respect thereto have been timely paid by or on behalf of Calando or the Third Party co-owner thereof; (v) there are no inventorship challenges, opposition or nullity proceedings or interferences declared, commenced or provoked with respect to any Collective Patent Rights; and (vi) with respect to any Licensed Patent Rights owned, in whole or in part, by Calando, Calando and its Affiliates have, and any co-owner of such Patent Rights has, complied with the duty of candor and disclosure to the United States Patent and Trademark Office and any relevant foreign patent office and have made no material misrepresentation in any patent applications included in or underlying such Patent Rights. Calando has no Knowledge of any information that would preclude it from owning the Assigned IP (immediately prior to the assignment pursuant to Section 2.2 of the Platform Agreement) or the Licensed Patent Rights described in clause (vi) hereof.

(f) Non-Infringement of Third Party Rights. There are no claims pending or, to the actual knowledge of the Calando Representatives, threatened by any person against Calando or any of its Affiliates alleging that Calando's ownership, sale, licensing, possession or use of, or disclosure, transfer, license or assignment (as applicable) to Cerulean of, the Inventory, or Licensed IP infringes upon or constitutes an unauthorized use of the intellectual property rights of any person, nor is there any known basis for any such claim. Except as previously disclosed to the General Counsel of Cerulean, to the actual knowledge of the Calando Representatives, the research, development, making, having made, use, offering for sale, distribution, sale or importation of IT-101 by or on behalf of Cerulean, its Affiliates or sublicensees after the Effective Date, will not infringe or misappropriate any intellectual property right of any Third Party. Calando and its Affiliates have not received any complaint, claim or notice, nor any threat thereof (including any notification that a license under any Patent Right or other intellectual property right is or may be required), alleging any such infringement or misappropriation.

(g) Non-Infringement by Third Party. To Calando's Knowledge, no person (including any current or former employee or consultant of Calando) is infringing, violating or misappropriating any of the Licensed IP in the Field.

(h) Corporate Documents. Calando has furnished to Cerulean true, complete and accurate copies of (i) its current Certificate of Incorporation and by-laws; (ii) all material documentation pertaining to the formation of the previous corporate entity known as Calando Pharmaceuticals, Inc., the subsequent merger of such corporate entity into Insert Therapeutics, Inc. and the subsequent change in the name of Insert Therapeutics, Inc. to Calando Pharmaceuticals, Inc.; (iii) its stock ledger going back to the inception of Calando or its predecessor and a list of all current stockholders of Calando; (iv) all documentation for any repurchased or cancelled shares of stock of Calando; (v) all option plans, option agreements, warrants and other rights to purchase equity of Calando (including any exercises) and the ledger(s) listing current holders thereof; (vi) all promissory notes of Calando and a ledger listing all current holders thereof; (vii) all agreements relating to the sale of equity of Calando; (viii) all board of director and stockholder minute books dating to the inception of Calando or its predecessor; and (ix) any other Relevant Agreement (A) under which a Lien has been or could be imposed on any of the Assigned IP, Licensed IP or Inventory and (B) any agreement that restricts or could reasonably be expected to have the effect of restricting the rights granted to Cerulean hereunder.

(i) Approvals. This Agreement and the transactions contemplated hereby have been approved by Calando's board of directors and stockholders in accordance with the corporate laws of the state of Delaware, including Section 144 of the Delaware General Corporation Law.

(j) Solvency. Neither Calando nor any of its Affiliates has ever filed in any court or agency pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a



receiver or trustee of it or its assets. Neither Calando nor any of its Affiliates has been served with an involuntary petition against it, filed in any insolvency proceeding. Neither the execution and delivery of this Agreement nor the consummation of the transactions contemplated hereby will result in the imposition of any Lien upon any assets of Calando.

(k) Clinical Trials, Exhibit L lists each person with which Calando or any of its Affiliates has executed any agreement, or to which any units of Licensed Product have been shipped on or before the Effective Date, for purposes of conducting any Clinical Trial (each, a "Clinical Trial Site"). To Calando's Knowledge, each patient involved in a Clinical Trial of the Licensed Product has executed an informed consent (in substantially the form provided to Cerulean by Calando) and a HIPAA authorization. To Calando's Knowledge, all Clinical Trials conducted on the Licensed Product have been conducted in compliance in all material respects with the relevant protocol and any and all applicable laws, regulations and guidelines, and any other relevant professional standard relating to the conduct of the Clinical Trial and the performance of clinical investigations, including such laws, rules and regulations concerning or promulgated by the FDA. The IT-101 IND is the only IND covering the Licensed Product. Calando has provided Cerulean with a true and complete copy of all Regulatory Documentation generated on or before the Effective Date with respect to IT-101.

(l) Debarment. Neither Calando, any Affiliate of Calando, or to Calando's Knowledge, any Clinical Trial Site, investigator or any other person who provided or is providing services in any capacity involved in any Clinical Trial of the Licensed Product (each, a "Clinical Trial Investigator"): (i) is or was subject to any pending or threatened, investigation by (A) the FDA pursuant to its "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" policy set forth in 56 Fed. Reg. 46191 (September 10, 1991) or any amendments thereto, (B) the Department of Health and Human Services Office of Inspector General or Department of Justice pursuant to the Federal Anti-Kickback Statute (42 U.S.C. §1320a-7(b)) or the Civil False Claims Act (31 U.S.C. §§3729 et seq.), or (C) any equivalent statute of any other country; (ii) committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for action under any of the statutes, regulations, and policy referred to in clause (i); or (iii) has been convicted of any crime or engaged in any conduct that would reasonably be expected to result in (A) debarment under 21 U.S.C. §335a or any similar state or foreign law or (B) exclusion under 42 U.S.C. §1320a-7 or any similar state or foreign law. No data generated by any Clinical Trial Investigator in connection with any Clinical Trial of any Licensed Product is the subject of any pending regulatory action by the FDA or any other Regulatory Authority relating to the truthfulness or scientific adequacy of such data.

9.3 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS SECTION 9, NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS.

SECTION 10. INDEMNIFICATION

10.1 Indemnification by Cerulean. Cerulean agrees to defend the Calando Indemnitees, at Cerulean's cost and expense, and will indemnify and hold harmless the Calando

Indemnitees from and against any and all losses, costs, damages, fees or expenses (“Losses”) relating to or in connection with a Third Party claim arising out of (a) any actual or alleged death, personal bodily injury or damage to real or tangible personal property claimed to result, directly or indirectly, from the possession, use or consumption of, or treatment with, any Licensed Product, developed, manufactured, used or sold by or on behalf of Cerulean, its Affiliates or sublicensees after the Effective Date; (b) any breach by Cerulean of its representations, warranties or covenants made under this Agreement; or (c) any negligent act or omission or willful misconduct of Cerulean, its Affiliates or sublicensees or any of their employees, contractors or agents, in performing Cerulean’s obligations or exercising Cerulean’s rights under this Agreement; provided, however, that the foregoing indemnity shall not apply to the extent that any such Losses (i) are attributable to the gross negligence or willful misconduct of the Calando Indemnitees, or (ii) are otherwise subject to an obligation by Calando to indemnify the Cerulean Indemnitees under Section 10.2. In the event of any such claim against any Calando Indemnitee, Calando shall promptly notify Cerulean in writing of the claim and Cerulean shall manage and control, at its sole expense, the defense of the claim and its settlement as provided below. The relevant Calando Indemnitees shall cooperate with Cerulean and may, at such Calando Indemnitees’ option and expense, be represented in any such action or proceeding. Cerulean shall not be liable for any settlements, litigation costs or expenses incurred by any Calando Indemnitees without Cerulean’s written authorization. No Calando Indemnitee shall settle any such claim without the prior written consent of Cerulean. Cerulean shall not, without the prior written consent of Calando, agree to any settlement of any such claim that does not include a complete release of Calando from all liability with respect thereto or that imposes any liability, obligation or restriction on Calando.

10.2 Indemnification by Calando. Calando agrees to defend the Cerulean Indemnitees, at Calando’s cost and expense, and will, jointly and severally with Arrowhead, indemnify and hold harmless the Cerulean Indemnitees from and against any and all Losses relating to or in connection with a Third Party claim arising out of (a) any research, development, manufacture, use, sale, offer for sale or importation of the Licensed Product by or on behalf of Calando, its Affiliates or licensees which activity occurred on or before the Effective Date, including claims arising out of the Clinical Trials of IT-101 conducted by or on behalf of Calando, its Affiliates or licensees prior to the Effective Date; (b) any breach by Calando of its representations, warranties or covenants made under this Agreement or any breach by Arrowhead of its representations, warranties or covenants made under the Arrowhead Guarantee; or (c) any negligent act or omission or willful misconduct of Calando or its Affiliates, or any of their employees, contractors or agents, in performing Calando’s obligations or exercising Calando’s rights under this Agreement; provided, however, that the foregoing indemnity shall not apply to the extent that any such Losses (i) are attributable to the gross negligence or willful misconduct of the Cerulean Indemnitees, or (ii) are otherwise subject to an obligation by Cerulean to indemnify the Calando Indemnitees under Section 10.1. In the event of any such claim against any Cerulean Indemnitee, Cerulean shall promptly notify Calando in writing of the claim and Calando shall manage and control, at its sole expense, the defense of the claim and its settlement as provided below. The relevant Cerulean Indemnitees shall cooperate with Calando and may, at such Cerulean Indemnitees’ option and expense, be represented in any such action or proceeding. Calando shall not be liable for any settlements, litigation costs or expenses incurred by any Cerulean Indemnitees without Calando’s written authorization. No Cerulean Indemnitee shall settle any such claim without the prior written consent of Calando. Calando shall not, without

the prior written consent of Cerulean, agree to any settlement of any such claim that does not include a complete release of Cerulean from all liability with respect thereto or that imposes any liability, obligation or restriction on Cerulean.

10.3 Allocation. If a claim is based partially on an indemnified claim and partially on a non-indemnified claim or based partially on a claim indemnified by one Party and partially on a claim indemnified by the other Party, any payments in connection with such claims are to be apportioned between the Parties in accordance with the degree of cause attributable to each Party.

#### SECTION 11. LIMITATION OF LIABILITY

11.1 UNLESS RESULTING FROM A PARTY'S WILLFUL MISCONDUCT OR FROM A PARTY'S BREACH OF SECTION 8, NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY OR ITS AFFILIATES FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE, MULTIPLE OR OTHER INDIRECT DAMAGES, OR FOR LOSS OF PROFITS, LOSS OF DATA, LOSS OF REVENUE, OR LOSS OF USE DAMAGES, ARISING FROM OR RELATING TO THIS AGREEMENT, WHETHER BASED UPON WARRANTY, CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. FOR PURPOSES OF CLARITY, A PARTY'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 10 OF THIS AGREEMENT SHALL NOT BE DEEMED TO BE INDIRECT DAMAGES PRECLUDED BY THE FOREGOING.

#### SECTION 12. TERM AND REMEDIES

12.1 Term. This Agreement shall commence on the Effective Date and shall continue until the expiration of all royalty obligations under Section 5.5 (the "Term"); provided, however, that Cerulean shall have the right to terminate this Agreement at any time and for any reason upon thirty (30) days prior written notice to Calando. Unless Cerulean has certified in good faith to Calando in such termination notice that such termination was not made, in whole or in part, for a Safety Concern, then upon such termination by Cerulean, Cerulean shall (a) grant to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, and (b) assign to Calando all right, title and interest in the IT-101 IND. Further, if Cerulean determines, in its sole discretion, that such a license would be consistent with Cerulean's business purpose and plans, Cerulean agrees to discuss in good faith with Calando the possibility of granting to Calando a license to such Know-How, and the intellectual property rights encompassed therein, which is developed, conceived or reduced to practice by Cerulean after the Effective Date and which pertains to IT-101, in order for Calando to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field. "Safety Concern" means any toxicity, serious adverse event, side effect, issue associated with the therapeutic index, or other safety finding, whether in vitro, in animals or in humans, that leads to a determination that IT-101 exposes or could expose animals or humans to an unacceptable safety risk in relation to therapeutic benefit.

12.2 Remedy for Breach. If a Party (the “Breaching Party”) is in breach of a material provision of this Agreement (including any breach of a material representation or warranty made in this Agreement), then the other Party (the “Non-Breaching Party”) may deliver notice of such breach to the Breaching Party.

(a) If the Breaching Party fails to cure such breach within [\*\*] days after the Breaching Party’s receipt of such notice, then the Non-Breaching Party may seek money damages from the Breaching Party with respect to such breach, which shall be the Non-Breaching Party’s sole remedy, except as provided in Sections 5.7, 12.2(b) or 12.2(c).

(b) If Cerulean has breached a payment obligation under Section 5 and Cerulean fails to cure such payment breach within [\*\*] days after Cerulean’s receipt of such notice, then Calando may, upon written notice to Cerulean, terminate this Agreement; provided, however, that if Cerulean disputes such breach, Calando may not terminate this Agreement unless and until such dispute is finally resolved in Calando’s favor and Cerulean fails to cure such payment breach within [\*\*] days after such final resolution. In the case of a termination, Cerulean shall (i) grant to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, and (ii) assign to Calando all right, title and interest in the IT-101 IND.

(c) If Cerulean has breached its obligations under Section 6.1 and Cerulean fails to cure such breach within [\*\*] days after Cerulean’s receipt of such notice, then Calando may, upon written notice to Cerulean, convert the license granted in Section 3.1 to a non-exclusive license; provided, however, that if Cerulean disputes such breach, Calando may not convert such license unless and until such dispute is finally resolved in Calando’s favor and Cerulean fails to cure such breach within [\*\*] days after such final resolution. In the case of a conversion to non-exclusivity, the royalties payable under this Agreement, as determined in accordance with Section 5.5, shall be reduced by [\*\*] percent ([\*\*]%) and Cerulean shall grant to Calando a non-exclusive, transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field.

12.3 Challenges to Licensed Patent Rights. If Cerulean or an Affiliate of Cerulean challenges the validity or enforceability of any of the Licensed Patent Rights before any court, arbitrator or other tribunal or administrative agency in any jurisdiction, Calando shall have the right to terminate this Agreement on thirty (30) days prior written notice to Cerulean

#### 12.4 Consequences of Termination.

(a) Upon any termination of this Agreement, the license to Cerulean of the Licensed IP shall terminate subject to the following. Cerulean shall, within [\*\*] days of the effective date of such termination, notify Calando in writing of the amount of Licensed Products which Cerulean and its Affiliates and Sublicensees then have completed in inventory, the sale of which would, but for the termination, be subject to royalty payments or payment of a portion of

Sublicense Income, and Cerulean and its Affiliates and Sublicensees shall thereupon be permitted during the [\*\*] months following such termination to sell that amount of Licensed Products; provided, however, that Cerulean shall pay the aggregate royalty or portion of Sublicense Income due thereon at the conclusion of the earlier of [\*\*] days after the last such sale or [\*\*] days after the end of such [\*\*]month period. Except as provided herein, all sublicenses granted by Cerulean shall terminate upon the termination of this Agreement.

(b) Upon any termination of this Agreement, neither Party shall be relieved of any obligations incurred prior to such termination.

(c) Upon any termination of this Agreement, each Party shall promptly return to the other Party all tangible Confidential Information of the other Party.

(d) The following provisions shall survive the expiration or termination of this Agreement: Sections 2, 3.3 (if applicable), 5.9, 7.1, 7.2(a), 7.3(b), 8, 9.3, 10, 11, 12.1 (with respect to the license granted and the assignment made thereunder, if applicable), 12.2(b) (with respect to the license granted and the assignment made thereunder, if applicable), 12.4 and 13. Any licenses granted under Section 5.5(b)(iii) on or before the effective date of expiration or termination of this Agreement shall survive the expiration or termination of this Agreement.

#### SECTION 13. MISCELLANEOUS

13.1 Assignment. Neither this Agreement nor any of the rights or obligations hereunder may be assigned by either Party without the prior written consent of the other Party, except (a) each Party may assign this Agreement, in whole or in part, to an Affiliate of the assigning Party; provided, that the assigning Party guarantees the performance of such Affiliate of its obligations hereunder; (b) each Party may assign this Agreement, in whole, to a person who acquires all or substantially all of the business of the assigning Party by merger, sale of assets or otherwise (a "Sale Event"); and (c) each Party may exercise its rights or fulfill its obligations through its Affiliates, consultants, subcontractors and sublicensees; provided, that, such persons are bound by the corresponding obligations of such Party and such Party shall remain liable hereunder for the performance of its obligations hereunder. Any assignment not in accordance with the foregoing shall be void. Notwithstanding anything to the contrary herein, Calando shall not (i) assign this Agreement, in whole or in part, to any person unless Calando simultaneously assigns to such person all right, title and interest in, to and under the Licensed IP, the Caltech Agreement and the Caltech Side Letter, and (ii) assign any right, title or interest in or to the Licensed IP, except subject to the rights of Cerulean under this Agreement. This Agreement shall be binding upon, and shall inure to the benefit of, all permitted successors and assigns.

13.2 Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding its conflicts of laws provisions.

13.3 Dispute Resolution. Any dispute, controversy or claim arising out of or relating to this Agreement, or the breach, termination or invalidity thereof, shall be resolved as follows:

The chief executive officers of the Parties shall attempt to resolve such dispute through good faith negotiation. Any such resolution of a referred dispute by the chief executive officers shall be final and binding on the Parties.

(a) If the Parties' chief executive officers cannot resolve such dispute within [\*\*] days after either Party provides written notice of such dispute, then either Party may make a written demand for formal dispute resolution.

(b) Within [\*\*] days after such written demand, the Parties shall conduct a non-binding mediation administered by the American Arbitration Association in accordance with its commercial mediation rules. Unless otherwise mutually agreed upon by the Parties, the mediation proceedings shall be conducted at the location chosen by the Party not originally requesting the resolution of the dispute. The Parties shall share equally the cost of the mediation, including filing and hearing fees and the cost of the mediator(s). Each Party shall have the right, at its own expense, to be represented by counsel in such a proceeding.

(c) If such dispute is not resolved following mediation pursuant to Section 13.3(c), either Party may seek any remedy, at law or in equity, that may be available to it.

(d) Notwithstanding the foregoing provisions of this Section 13.3, each Party shall have the right at any time to institute judicial proceedings against the other Party or anyone acting by, through or under such other Party, in order to enforce the instituting Party's rights hereunder through reformation of contract, specific performance, injunction or similar equitable relief.

13.4 Amendment and Waiver. This Agreement may not be amended, nor any rights hereunder waived, except in a writing signed by the properly authorized representatives of each Party. The waiver by either Party of a breach or a default of any provision of this Agreement by the other Party shall not be construed as a waiver of any succeeding breach of the same or any other provision, nor shall any delay or omission on the part of either Party to exercise or avail itself of any right, power or privilege that it has or may have hereunder operate as a waiver of any right, power or privilege by such Party.

13.5 Notices. Any notice required or provided for by the terms of this Agreement shall be in writing, in the English language, and shall be (a) sent by certified mail, return receipt requested, postage prepaid, (b) sent via a reputable overnight air courier service, or (c) delivered by hand. Notices shall be effective when delivered to the addressee at the address listed in the first paragraph of this Agreement or such other address as the addressee shall have specified in the manner provided in this Section 13.5. The effective date of the notice shall be the actual date of receipt by the receiving Party.

13.6 No Agency. Nothing herein shall be deemed to constitute either Party as the agent or representative of the other Party or both Parties as joint venturers or partners for any purpose. Neither Party shall be responsible for the acts or omissions of the other Party, and neither Party will have authority to speak for, represent or obligate the other Party in any way without prior written authority from the other Party. Except for the Calando Indemnitees and the Cerulean Indemnitees, no person shall be a third party beneficiary of this Agreement.

13.7 Entire Agreement. This Agreement contains the full understanding of the Parties with respect to the subject matter hereof and supersedes all prior understandings and writings relating thereto, including the Prior Confidentiality Agreement; provided, however, that the Parties agree and acknowledge that the Platform Agreement, the Escrow Agreement and the Caltech Side Letter are being entered into concurrently herewith or have been entered into prior to the Effective Date and shall remain in effect.

13.8 Force Majeure. Neither Party will be held liable or responsible to the other Party nor be deemed to have breached this Agreement for failure or delay in fulfilling or performing any provision of this Agreement when such failure or delay results from causes beyond the reasonable control of the affected Party, which may include embargoes, acts of war (whether declared or not), insurrections, riots, civil commotions, acts of terrorism, strikes, lockouts or other labor disturbances, or acts of God. The affected Party will notify the other Party of such force majeure circumstances as soon as reasonably practical and will make every reasonable effort to mitigate the effects of such force majeure circumstances.

13.9 Severability. If any provision of this Agreement is held by a court of competent jurisdiction to be unenforceable because it is invalid or in conflict with any law of any relevant jurisdiction, the validity of the remaining provisions shall not be affected, and the rights and obligations of the Parties shall be construed and enforced as if the Agreement did not contain the particular provisions held to be unenforceable.

13.10 Export Compliance. The Parties acknowledge that the exportation from the United States of materials, products and related technical data (and the re-export from elsewhere of United States origin items) may be subject to compliance with United States export laws. Each Party shall comply with all applicable laws (whether U.S. or foreign) relating to the export, re-export, or release of any materials, products or their related technical data.

13.11 Counterparts and Facsimile Signatures. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. This Agreement may be executed by facsimile signature.

13.12 Construction. In construing this Agreement, unless expressly specified otherwise;

- (a) references to Sections and Exhibits are to sections of, and exhibits to, this Agreement;
- (b) use of either gender includes the other gender, and use of the singular includes the plural and vice versa;
- (c) headings and titles are for convenience only and do not affect the interpretation of this Agreement;
- (d) any list or examples following the word “include” or “including” shall be interpreted without limitation to the generality of the preceding

words; and

(e) the language used in this Agreement shall be deemed to be the language chosen by the Parties to express their mutual intent, and no rule of strict construction shall be applied against either Party.

*[Remainder of Page Intentionally Left Blank]*



IN WITNESS WHEREOF, the Parties hereto have caused this IT-101 Agreement to be executed as a sealed instrument in their names by their properly and duly authorized officers or representatives as of the date first above written.

CERULEAN PHARMA INC.

By: /s/ Oliver Fetzer

Name: Oliver Fetzer

Title: Chief Executive Officer

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone

Name: Christopher Anzalone

Title: Chief Executive Officer

Arrowhead Research Corporation, hereby (a) guarantees Calando's performance under this Agreement, (b) makes the same representations and warranties to Cerulean as Calando makes to Cerulean under Section 9.1 and clauses (h)-(j) of Section 9.2, and (c) agrees to indemnify Cerulean to the same extent as Calando indemnifies Cerulean pursuant to Section 10.2 from any Losses relating to or in connection with a Third Party claim arising out of any breach by Arrowhead of its representations or warranties as described in clause (b), and for which indemnification Calando and Arrowhead shall be jointly and severally liable to Cerulean and the Cerulean Indemnitees.

ARROWHEAD RESEARCH CORPORATION

By: /s/ Christopher Anzalone

Name: Christopher Anzalone

Title: President and Chief Executive Officer

Signature Page to IT-101 Agreement

**Exhibit A**

**Assigned Patent Rights**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>	<b>OWNER</b>
[Redacted]									
[Redacted]									

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of four pages were omitted. [\*\*]

**Exhibit B**

**Caltech Joint Patent Rights**

FILE NUMBER	COUNTRY NAME	STATUS	TITLE	CUSTOM STATUS	SERIAL NUMBER	FILING DATE	ISSUE DATE	PATENT NUMBER	Owners
[Redacted]									
[Redacted]									

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of three pages were omitted. [\*\*]

**Exhibit C**

**Caltech Sole Patent Rights**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>	<b>Owner</b>
[Redacted]									
[Redacted]									

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of three pages were omitted. [\*\*]

**Exhibit D**

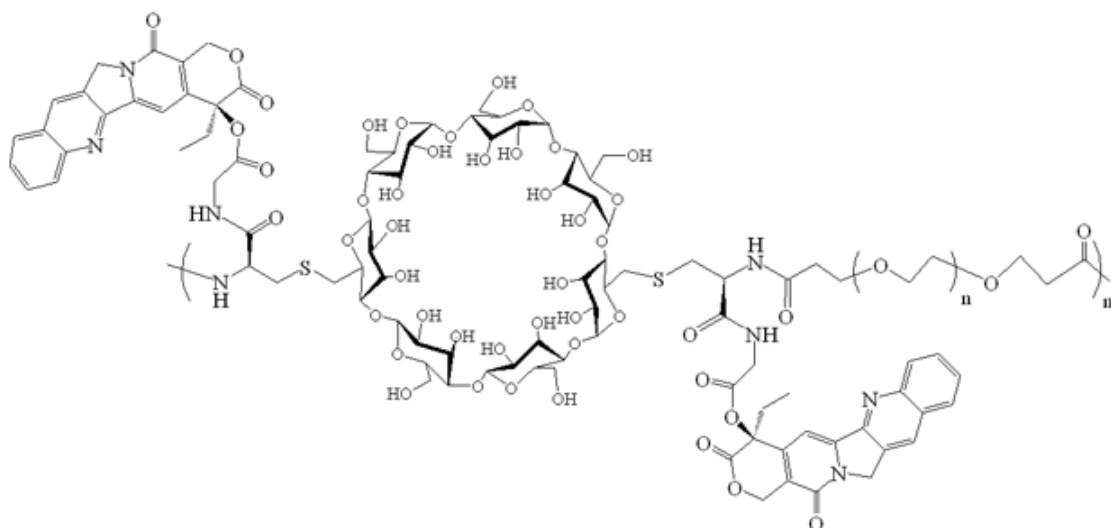
**RNAi Patent Rights**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>	<b>OWNER</b>
[Redacted]									
[Redacted]									

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of three pages were omitted. [\*\*]

Exhibit E

IT-101



“IT-101” means any mixture of conjugates of a linear, cyclodextrin-based polymer with 20(S)-camptothecin. The structure of the repeating unit of these conjugates is shown above wherein  $n$  = number of ethylene glycol repeating units (average  $n = 77$  for PEG with MW 3400) and  $m$  = number of repeating units of (CD-PEG-camptothecin) in Poly-CD-PEG-Camptothecin (average  $m = 14 \pm 4$  for a parent polymer within the specification range of 48 – 85 kDa).

**Exhibit F**

**Caltech Side Letter**

[Calando Letterhead]

June 11, 2009

Office of Technology Transfer  
California Institute of Technology  
1200 East California Boulevard (MC 210-85)  
Pasadena, California 91125

Cerulean Pharma Inc.  
161 First Street, Suite 2A  
Cambridge, Massachusetts 02412

Ladies/Gentlemen:

Reference is made to the License Agreement between California Institute of Technology ("Caltech") and Calando Pharmaceuticals, Inc. (formerly known as Insert Therapeutics, Inc.) ("Calando") dated May 22, 2000, as amended on December 10, 2001, January 13, 2003 and June 19, 2009 (the "License Agreement"). Capitalized terms used herein and not otherwise defined herein shall have the meanings given such terms in the License Agreement.

Reference is also made to Calando's anticipated transaction with Cerulean Pharma Inc. ("Cerulean") pursuant to which Calando will grant Cerulean, under one or more agreements (the "Transaction Agreements"), a combination of an assignment of, and a world-wide license, including the right to grant further sublicenses, to, Calando's interest in all patent rights and know-how pertaining to its cyclodextrin-based polymer drug delivery systems (the "Cyclodextrin System") in order for Cerulean to (a) conduct research and development on the Cyclodextrin System, including making improvements thereto, for the purpose of making, using and selling Products for the Therapeutic Field and (b) research, develop, make, have made, use, market, offer to sell, distribute, sell and import Products for the Therapeutic Field.

Calando's interest will include Calando's interest in the Caltech Technology. Products will be defined to include pharmaceutical compositions containing therapeutic agents conjugated or complexed to the Cyclodextrin System and will specifically include Calando's clinical asset IT-101. Products will exclude pharmaceutical compositions containing cytolysin, tubulysin, certain second generation epothilones and nucleic acids as the therapeutic agents. Therapeutic Field will mean the use of Products to treat and/or prevent disease in humans.

For purposes of clarity, a current list of the Licensed Patent Rights, which are solely owned by Caltech, is attached hereto as Exhibit A, a current list of the Improvements, which are jointly

owned by Caltech and Calando, is attached hereto as Exhibit B, and a current list of the patent rights solely owned by Calando is attached hereto as Exhibit C (the "Calando Patents"). Calando's exclusive interest in the Licensed Patent Rights and Improvements and Calando's non-exclusive interest in the Technology will be (a) exclusively sublicensed to Cerulean in order to research and develop the Cyclodextrin System, and make improvements thereto, for the purpose of making, using and selling Products for the Therapeutic Field and (b) exclusively sublicensed to Cerulean for purposes of researching, developing, making, having made, using, marketing, offering to sell, distributing, selling and importing Products for the Therapeutic Field. The Calando Patents will be assigned to Cerulean.

As a result of discussions among Calando, Caltech and Cerulean regarding the License Agreement, Calando, Caltech and Cerulean have agreed to certain modifications and/or clarifications pertaining to the License Agreement, as follows:

1. In the event of the bankruptcy or other insolvency of Calando, a termination, for any reason, of the License Agreement, or a conversion to non-exclusivity of the licenses granted to Calando in the License Agreement, Caltech agrees to directly honor the exclusive license, including the right to grant further sublicenses, granted by Calando to Cerulean to practice the Licensed Patents Rights and the Improvements and to use the Technology in connection with Products in the Therapeutic Field, with the following additional understandings of Calando, Caltech and Cerulean.

In the event of the bankruptcy or other insolvency of Calando, or the termination, for any reason, of the License Agreement, to the extent not paid by Calando, Cerulean shall be obligated to pay to Caltech (a) the annual minimum royalties due Caltech pursuant to Section 3.7 of the License Agreement, (b) the patent costs due Caltech pursuant to Sections 10.1 and 10.4 of the License Agreement and (c) the amounts that Calando would have been obligated to pay to Caltech under the terms of Section 3.13 of the License Agreement in respect of the net sales of Products by Cerulean; provided that if there are one or more other licensees of the Caltech Technology, the annual minimum royalties and patent costs due Caltech shall be shared equally among the licensees of the Caltech Technology. To the extent that Cerulean makes any such payments to Caltech, Cerulean shall be entitled to deduct the full amount of such payments from any milestones or royalties due Calando under the Transaction Agreements.

2. For purposes of clarity, during the term of the License Agreement and/or subsequent to a termination, for any reason, of the License Agreement, the provisions of Section 10.4 of the License Agreement shall apply with respect to the prosecution and maintenance of the Licensed Patent Rights and Improvements by Caltech with the following additional understandings of Calando, Caltech and Cerulean.

Unless and until there occurs an event of bankruptcy or other insolvency involving Calando or a termination, for any reason, of the License Agreement, Calando shall remain liable to Caltech for the patent costs incurred by Caltech in connection with the prosecution and maintenance of the Licensed Patent Rights and Improvements. In the event of the bankruptcy or other insolvency of Calando and/or a termination, for any reason, of the License Agreement, to the extent not paid by Calando, the terms of Paragraph 1 shall apply with respect to the patent costs incurred by Caltech in connection with the prosecution and maintenance of the Licensed Patent Rights and Improvements.



In the event of the bankruptcy or other insolvency of Calando and/or a termination, for any reason, of the License Agreement, Caltech agrees that Cerulean shall have the direct right to review and comment upon and approve any and all patent filings and all actions undertaken in the prosecution and maintenance of the Licensed Patent Rights and Improvements. Further, in the event that Caltech determines not to prepare, file, prosecute or maintain any patent application or patent within the Licensed Patent Rights or Improvements, Caltech shall promptly notify Cerulean, and thereupon, Cerulean shall have the right, at its own expense, to prepare, file, prosecute and maintain any such patent application or patent within the Licensed Patent Rights or Improvements.

3. Whether or not the License Agreement is in effect, the following terms and conditions will apply with respect to the enforcement of the Licensed Patent Rights and Improvements in connection with Products in the Therapeutic Field:

(a) Cerulean, acting directly or through an affiliate or sublicensee, shall have, for a period of [\*\*] days from the notice of an infringement of the Licensed Patent Rights and/or Improvements, the first right to institute an action or suit against the infringing third party in accordance with the following:

The action or suit shall be brought in the name of Cerulean and Cerulean shall bear the entire cost of such action or suit. Cerulean shall promptly provide Caltech and/or Calando with copies of all litigation pleadings and other documents submitted to the court.

With respect to any consideration received by Cerulean in connection with such action or suit, Cerulean shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Caltech and/or Calando). Thereafter, (x) to the extent that the remaining recovery represents lost profits, such remaining recovery shall be retained by Cerulean, with Calando entitled to receive an amount equal to the royalties that would have been due Calando on sales of Products lost by Cerulean as a result of the infringement and (y) to the extent that the remaining recovery represents punitive or other damages, Cerulean shall be entitled to [\*\*]% of such remaining recovery and Calando shall be entitled to [\*\*]% of such remaining recovery. In the event that the License Agreement is not in effect, Cerulean will be obligated to pay to Caltech the amounts that Calando would have been obligated to pay to Caltech under the terms of the License Agreement had the action been instituted by Calando.

If it shall be necessary for Cerulean to join Caltech and/or Calando as a party to an action or suit because Caltech and/or Calando constitutes a legally indispensable party, Cerulean shall have the right to so join Caltech and/or Calando, provided that Cerulean indemnifies Caltech and/or Calando for all outside costs and expenses thereby incurred by Caltech and/or Calando.

(b) If within [\*\*] days after notification of an infringement of the Licensed Patent Rights or Improvements pursuant to clause (a) above, Cerulean has not been successful in persuading the alleged infringer to desist and is not diligently pursuing an infringement action or suit, or has

notified Caltech and Calando of its intent not to bring action or suit against the alleged infringer, then Caltech and/or Calando may institute an action or suit against such third party, in accordance with their rights of priority under Sections 6.1 and 6.2 of the License Agreement, subject to the following:

Prior to taking any action, Caltech and Calando shall confer with Cerulean and give due consideration to Cerulean's reasons for not pursuing such alleged infringer.

(ii) The action or suit shall be brought in the name of Caltech and/or Calando and Caltech and/or Calando shall bear the entire cost of such action or suit. Caltech and/or Calando shall promptly provide Cerulean with copies of all litigation pleadings and other documents submitted to the court.

(iii) With respect to any consideration received by Caltech and/or Calando in connection with such action or suit, Caltech and/or Calando shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Cerulean). In the case where the Product has not been licensed by Cerulean to a third party, [\*\*]% of the remaining recovery shall go the party bringing the action and [\*\*]% of the remaining recovery shall go to Cerulean. In the case where the Product has been licensed by Cerulean to a third party, the remaining recovery shall be split equally between the party bringing the action or suit and Cerulean and/or the licensee of Cerulean.

If it shall be necessary for Caltech and/or Calando to join Cerulean as a party to an action or suit because Cerulean constitutes a legally indispensable party, Caltech and/or Calando shall have the right to so join Cerulean, provided that Caltech and/or Calando indemnifies Cerulean for all outside costs and expenses thereby incurred by Cerulean.

(c) In the event that a declaratory judgment action alleging invalidity, unenforceability or non-infringement of the Licensed Patent Rights or Improvements is brought against Cerulean, Caltech and/or Calando, Cerulean, at its option, shall have the right, within [\*\*] days of the commencement of such action, to take over the sole defense of the action at its own expense and with the provisions of clause (a)(iii) above applying. If Cerulean does not exercise this right, Caltech and/or Calando may take over the defense of the action, in accordance with their rights of priority under Section 6.3 of the License Agreement, at Caltech's or Calando's sole expense.

(d) If any action or suit is brought involving the enforcement or defense of the Licensed Patent Rights or Improvements, the other parties agree, at the request and expense of the party initiating such action or suit, to reasonably cooperate and to make available relevant records, papers, information, samples, specimens and the like.

(e) No settlement or consent judgment or other voluntary final disposition of an enforcement or defense action or suit initiated by a party may be entered into without the consent of the other parties, which consent will not be unreasonably withheld, provided that Cerulean shall, in its sole discretion, have the right to determine whether to grant and/or on what basis to grant a sublicense of the Licensed Patent Rights or Improvements to an infringer of the Licensed Patent Rights or Improvements for future use of the Licensed Patent Rights or Improvements in connection with Products in the Therapeutic Field.

4. Each party shall have the right to directly enforce the terms and conditions of this letter agreement against either or both of the other parties, as appropriate. Further, the terms and conditions of this letter agreement shall be assignable by Cerulean, and shall apply, to a person who acquires all or substantially all of the business of Cerulean by merger, sale of assets or otherwise.

In order to evidence your acceptance of the foregoing, please countersign this letter where indicated below.

Very truly yours,  
/s/ Christopher Anzalone

Christopher Anzalone,  
President

California Institute of Technology

By: /s/ Fred Farina  
Fred Farina  
Assistant Vice President  
Office of Technology Transfer  
California Institute of Technology

Cerulean Pharma Inc.

By: \_\_\_\_\_  
Oliver Fetzner, Chief Executive Officer

EXHIBIT A

FILE NUMBER	COUNTRY NAME	STATUS	TITLE	CUSTOM STATUS	SERIAL NUMBER	FILING DATE	ISSUE DATE	PATENT NUMBER
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Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of two pages were omitted. [\*\*]

**EXHIBIT B**

FILE NUMBER	COUNTRY NAME	STATUS	TITLE	CUSTOM STATUS	SERIAL NUMBER	FILING DATE	ISSUE DATE	PATENT NUMBER
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Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of one page was omitted. [\*\*]

EXHIBIT C

FILE NUMBER	COUNTRY NAME	STATUS	TITLE	CUSTOM STATUS	SERIAL NUMBER	FILING DATE	ISSUE DATE	PATENT NUMBER
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Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of three pages were omitted. [\*\*]

**Exhibit G**

**BILL OF SALE**

This Bill of Sale dated June 23, 2009 is executed and delivered by Calando Pharmaceuticals, Inc., a Delaware corporation (the "Seller"), to Cerulean Pharma Inc., a Delaware corporation (the "Buyer"). All capitalized words and terms used in this Bill of Sale and not defined herein shall have the respective meanings ascribed to them in the IT-101 Agreement dated June 23, 2009 between the Seller and the Buyer (the "Agreement").

WHEREAS, pursuant to the Agreement, the Seller has agreed to sell, transfer, convey, assign and deliver to the Buyer certain of the assets of the Seller;

NOW, THEREFORE, in consideration of the mutual promises set forth in the Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Seller hereby agrees as follows:

The Seller hereby sells, transfers, conveys, assigns and delivers to the Buyer, its successors and assigns, to have and to hold forever, all right, title and interest in, to and under all of the Inventory.

The Seller hereby covenants and agrees that it will, at the request of the Buyer and without further consideration, execute and deliver, and will cause its employees to execute and deliver, such other instruments of sale, transfer, conveyance and assignment, and take such other action, as may reasonably be necessary to more effectively sell, transfer, convey, assign and deliver to, and vest in, the Buyer, its successors and assigns, good, clear, record and marketable title to the Inventory hereby sold, transferred, conveyed, assigned and delivered, or intended so to be, and to put the Buyer in actual possession and operating control thereof, to assist the Buyer in exercising all rights with respect thereto and to carry out the purpose and intent of the Agreement.

The Seller does hereby irrevocably constitute and appoint the Buyer, its successors and assigns, its true and lawful attorney, with full power of substitution, in its name or otherwise, and on behalf of the Seller, or for its own use, to claim, demand, collect and receive at any time and from time to time any and all of the Inventory, and to prosecute the same at law or in equity and, upon discharge thereof, to complete, execute and deliver any and all necessary instruments of satisfaction and release.

The Seller, by its execution of this Bill of Sale, and the Buyer, by its acceptance of this Bill of Sale, each hereby acknowledges and agrees that neither the representations and warranties nor the rights, remedies or obligations of any party under the Agreement shall be deemed to be enlarged, modified or altered in any way by this instrument.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the Seller and the Buyer have caused this Bill of Sale to be duly executed under seal as of and on the date first above written.

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone

Title: Chief Executive Officer

Attest:

/s/ illegible

ACCEPTED:

CERULEAN PHARMA INC.

By: /s/ Oliver Fetzer

Title: Chief Executive Officer



**Exhibit H**

**Documentation to Transfer IT-101 IND**

(ON CALANDO STATIONERY)

June , 2009

**(OVERNIGHT COURIER: 06/XX/09)**

Robert L. Justice, M.D., Director  
Central Document Room  
Division of Drug Oncology Products  
Office of Oncology Products  
Center for Drug Evaluation and Research  
Food and Drug Administration  
5901-B Ammendale Road  
Beltsville, Maryland 20705-1266

**SUBJECT: IND 71,694: IT-101 (Poly-CD-PEG-Camptothecin)**  
**Serial Number 0022**  
**GENERAL CORRESPONDENCE: Transfer of IND Ownership**

Dear Dr. Justice:

Reference is made to the subject Investigational New Drug Application (IND), which was originally submitted on February 8, 2006 by Insert Therapeutics, Inc. Calando Pharmaceuticals, Inc. is the current sponsor of IND 71,694.

The purpose of this letter is to inform the Agency that IND 71,694 is being transferred to

Cerulean Pharma Inc.  
161 First Street, Suite 2A  
Cambridge, Massachusetts 02142

All rights to this IND are being transferred to Cerulean Pharma Inc. as of 1:00 PM Eastern Daylight Saving Time on June 23, 2009.

Sincerely,

Signature of Responsible Individual  
Title

**Exhibit I**

**Third Party Vendor Payments**

**Third Party Vendor:**

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**Portion of Initial Payment to  
be Paid to such Vendor on  
Calando's Behalf:**

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**Exhibit J**

**Press Releases**

*attached*

J-1



PRESS RELEASE  
June 24, 2009  
7:00 A.M. ET

Investor Relations Contact:  
Sanjay M. Hurry  
The Piacente Group, Inc.  
212-481-2050  
sanjay@tpg-ir.com

### **Arrowhead Subsidiary Calando Pharmaceuticals Enters into**

#### **License Agreement with Cerulean Pharma Inc.**

*- Calando To License Cyclosert™ Platform and Associated IT-101 Drug Candidate for Upfront Payment of \$2.4 Million, Milestone Payments and Royalties from Product Sales; Agreement Creates Substantial Potential Revenue Stream -*

PASADENA, Calif. – June 23, 2009 – Arrowhead Research Corporation (NASDAQ: ARWR) today announced that its Calando Pharmaceuticals, Inc. subsidiary has entered into a worldwide license agreement with Cerulean Pharma Inc. for Calando’s drug delivery platform, Cyclosert™, and associated clinical stage anti-cancer drug, IT-101. The agreement is part of Calando’s strategy to minimize its burn rate while retaining upside exposure via partnerships with high quality companies that will continue the development of Calando’s platforms and drug candidates. Importantly, this agreement does not include rights to develop and commercialize RNAi products or the clinical-stage RNAi candidate, CALAA-01, both of which Calando intends to partner separately.

Under the terms of the agreement, Cerulean made an upfront payment of \$2.4 million to Calando and will make development milestone payments of up to \$2.75 million if IT-101 progresses through clinical trials and receives marketing approval. If approved, Calando is also entitled to receive up to an additional \$30 million in sales milestone payments, plus royalties on net sales.

As a platform delivery system, Cyclosert™ may be utilized to generate a very large number of new drugs in addition to IT-101, and under the agreement with Cerulean, Calando will participate in any potential upside related to the development of other drugs using the delivery platform. For *each* new drug candidate that Cerulean is able to bring to market utilizing the Cyclosert™ system, Calando will be entitled to \$3 million in development milestone payments.

Once these products reach the market, Calando could potentially receive an additional \$15 million in sales milestone payments, plus royalties on net sales.

Commenting on the partnership, Dr. Christopher Anzalone, Arrowhead’s President and Chief Executive Officer, stated, “We strongly believe in IT-101 and the Cyclosert™ platform, and this transaction goes a long way toward achieving our dual strategy of decreasing costs *while* working to monetize these potentially powerful assets. We believe that Cerulean will be a terrific partner given its focus on nanoparticle-based drugs, strong financial position, and high quality management team. We look forward to our mutual future success.”

“Calando’s cyclodextrin co-polymer based technology is founded on elegant chemistry, and the integration of this platform into our program fully leverages the expertise and capabilities that we have built,” said Dr. Oliver Fetzer, President and Chief Executive Officer of Cerulean. “We look forward to applying the technology against a range of product opportunities, as well as further advancing IT-101 in the clinic.”

*About Arrowhead Research Corporation*

Arrowhead Research Corporation ([www.arrowheadresearch.com](http://www.arrowheadresearch.com)) (NASDAQ: ARWR) is a nanotechnology company commercializing new technologies in the areas of life sciences, electronics, and energy. Arrowhead is seeking to build value for shareholders through the progress of majority owned subsidiaries. Currently, Arrowhead has four subsidiaries commercializing nanotech products and applications and minority investments in two privately held nanobiotech companies.

*About Calando Pharmaceuticals Inc.*

Calando Pharmaceuticals Inc. ([www.calandopharma.com](http://www.calandopharma.com)), a majority-owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR), has developed proprietary technologies to create targeted siRNA-based therapeutics and small molecule nanoparticle drug conjugates. Calando’s innovative CycloSert™ and RONDEL™ nanoparticle systems have been designed to solve the long-standing obstacle of effective delivery and targeting for oligonucleotide and small molecule therapeutics. Calando has developed two clinical stage drug candidates for the treatment of cancer.

*About Cerulean Pharma Inc.*

Cerulean Pharma Inc. is a privately-held biopharmaceutical company focused on the development of novel, nanotechnology-based therapeutics in the areas of oncology, cardiovascular, autoimmune and inflammatory diseases. The Company has assembled a world-class management team, board of directors and scientific advisory board that collectively have a significant track record of business building, product development and scientific breakthroughs from companies and institutions such as Millennium Pharmaceuticals, Pfizer, GlaxoSmithKline, the Massachusetts Institute of Technology, Harvard Medical School, MD Anderson, Fox Chase Cancer Center and the Arizona Health Center. The company has been funded by leading investors Polaris Venture Partners, Venrock, Lux Capital, Bessemer Venture Partners, Alexandria Real Estate Equities, and William H. Rastetter. Cerulean is located in Cambridge, Massachusetts. For more information, please visit the company’s website at [www.ceruleanrx.com](http://www.ceruleanrx.com).

*Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995:*

This news release contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. These statements are based upon our current expectations and speak only as of the date hereof. Our actual results may differ materially and adversely from those expressed in any forward-looking statements as a result of various factors and uncertainties, including the recent economic slowdown, capital resources available to us, the future success of our scientific studies, our ability to successfully develop products, rapid technological change in our markets, changes in demand for our future products, legislative, regulatory and competitive developments and general economic conditions. For example, there can be no assurance that IT-101 will successfully advance through clinical trials or that Arrowhead will receive any of the future milestone or royalty payments that are described in this release. Similarly, there can be no assurance that other drugs will be successfully developed using the CycloSert™ platform. It is possible that Arrowhead could receive no additional payments or revenues from this arrangement beyond the upfront payment described above. Our most recent Annual Report on Form 10-K, as amended, and subsequent Quarterly Reports on Form 10-Q and other SEC filings discuss some of the important risk factors that may affect our business, results of operations and financial condition, including the risks relating to the development of new drug candidates. We disclaim any intent to revise or update publicly any forward-looking statements for any reason.

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**Cerulean Pharma Inc. Announces License Agreement with Calando Pharmaceuticals, Inc.,  
a Subsidiary of Arrowhead Research Corporation**

CAMBRIDGE, MA. – June 23, 2009 - Cerulean Pharma Inc., a biopharmaceutical company focused on developing intelligently designed, nanoparticle-based drugs, announced today that it has entered into an exclusive, worldwide license agreement with Calando Pharmaceuticals, Inc., a majority-owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR). Calando will receive an upfront payment as well as development and sales milestones and sales royalties.

Under the terms of the agreement, Cerulean has acquired worldwide exclusive rights to Calando's proprietary cyclodextrin co-polymer based drug delivery technology to develop and commercialize therapeutic products arising from application of this technology. Additionally, Cerulean has acquired worldwide exclusive rights to develop and commercialize Calando's clinical stage anti-cancer product candidate, IT-101, a camptothecin nanoparticle with a highly differentiated and promising pre-clinical foundation that has just successfully progressed through a Phase 1 clinical trial.

Calando's cyclodextrin co-polymer based drug delivery technology was originally developed by world-renowned chemical engineering scientist Professor Mark Davis and exclusively licensed from California Institute of Technology. This technology incorporates biologically compatible components and enables formulation of self-assembled nanoparticles for pharmaceutical product development. Highly complementary to Cerulean's platform technologies, the cyclodextrin copolymer based technology adds to the breadth and scope of Cerulean's efforts. With IT-101 as the first-in-human product candidate of the technology, promising results from the completed Phase 1 study have provided strong proof-of-principle that this technology can provide a dramatic improvement in drug pharmacokinetics and safety.

"Calando's cyclodextrin co-polymer based technology is founded on elegant chemistry, and the integration of this platform into our program fully leverages the expertise and capabilities that we have built," said Dr. Oliver Fetzer, President and Chief Executive Officer of Cerulean. "We look forward to applying the technology against a range of product opportunities, as well as further advancing IT-101 in the clinic."

"We believe strongly in IT-101 and the cyclodextrin co-polymer based delivery platform," stated Arrowhead's President and Chief Executive Officer, Dr. Christopher Anzalone. "Cerulean is well-positioned to further develop these assets given its focus on nanoparticle-based drugs, strong financial position, and high quality management team. We look forward to our mutual future success."

**About Cerulean Pharma Inc.**

Cerulean Pharma Inc. is a privately-held biopharmaceutical company focused on the development of novel, nanotechnology-based therapeutics in the areas of oncology, cardiovascular, autoimmune and inflammatory diseases. The Company has assembled a world-class management team, board of directors and scientific advisory board that collectively have a significant track record of business building, product development and scientific breakthroughs from companies and institutions such as Millennium Pharmaceuticals, Pfizer, GlaxoSmithKline, the Massachusetts

Institute of Technology, Harvard Medical School, MD Anderson, Fox Chase Cancer Center and the Arizona Health Center. The company has been funded by leading investors Polaris Venture Partners, Venrock, Lux Capital, Bessemer Venture Partners, Alexandria Real Estate Equities, and William H. Rastetter. Cerulean is located in Cambridge, Massachusetts. For more information, please visit the company's website at [www.ceruleanrx.com](http://www.ceruleanrx.com).

#### **About Arrowhead Research Corporation**

Arrowhead Research Corporation ([www.arrowheadresearch.com](http://www.arrowheadresearch.com)) (NASDAQ: ARWR) is a nanotechnology company commercializing new technologies in the areas of life sciences, electronics, and energy. Arrowhead is seeking to build value for shareholders through the progress of majority owned subsidiaries. Currently, Arrowhead has four subsidiaries commercializing nanotech products and applications and minority investments in two privately held nanobiotech companies.

#### **About Calando Pharmaceuticals Inc.**

Calando Pharmaceuticals Inc. ([www.calandopharma.com](http://www.calandopharma.com)), a majority-owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR), has developed proprietary technologies to create targeted siRNA-based therapeutics and small molecule nanoparticle drug conjugates. Calando's innovative CycloSert™ and RONDEL™ nanoparticle systems have been designed to solve the long-standing obstacle of effective delivery and targeting for oligonucleotide and small molecule therapeutics. Calando has developed two clinical stage drug candidates for the treatment of cancer.

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**Exhibit K**

**Escrow Agreement**

*attached*

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**Three-Party Escrow Agreement**

**Among**

**Calando Pharmaceuticals, Inc., Cerulean Pharma Inc.  
and Escrow Associates, LLC**

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

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**Escrow Associates, LLC encourages clients to modify the contracts as necessary to support their specific escrow requirements. Please contact us directly at (800) 813-3523 or [info@escrowassociates.com](mailto:info@escrowassociates.com)**

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

## Three-Party Escrow Agreement

This Technology Escrow Agreement (“Agreement”) among Escrow Associates, LLC (“Escrow Associates”), Cerulean Pharma Inc. (“Beneficiary”) and Calando Pharmaceuticals, Inc. (“Depositor”) is effective on this 22<sup>nd</sup> day of June 2009 (the “Effective Date”).

### Recitals

Whereas, Depositor and Beneficiary anticipate entering into (i) an IT-101 Agreement (the “IT-101 Contract”) and a Platform Agreement (the “Platform Contract”), such IT-101 Contract and Platform Contract to be referred to herein collectively as the “Calando/Cerulean Contracts”.

Whereas, the purpose of this Agreement is to provide for the escrow of certain laboratory notebooks related to the Calando/Cerulean Contracts and to provide for certain circumstances under which Beneficiary shall be entitled to receive the Deposit Materials held in escrow by Escrow Associates.

Whereas, Beneficiary and Depositor hereby designate and appoint Escrow Associates as the escrow agent under this Agreement. Escrow Associates hereby accepts such designation and appointment and agrees to carry out the duties of escrow agent pursuant to the terms and provisions of this Agreement. Escrow Associates is not a party to, and is not bound by, any agreement that might be evidenced by, or might arise out of, any prior or contemporaneous dealings between Depositor and Beneficiary other than as expressly set forth herein.

Whereas, Escrow Associates shall establish three (3) separate deposit accounts (“Deposit Accounts”) hereunder for the FA, RA & PA (as defined by Depositor on Exhibit D hereto) Deposit Materials respectively. Deposit Materials shall only be stored and released according to the terms herein. Deposit Materials from respective Deposit Accounts shall never be commingled or combined in any way

NOW, THEREFORE, for and in consideration of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound hereby, covenant and agree as follows:

### 1. Deposit Materials

(a) Initial Deposit - On the Effective Date, Depositor shall submit an initial deposit consisting of (i) one paper deposit of [\*\*] (listed in Exhibit D) original, complete and witnessed laboratory notebooks related to the business of Depositor and reflecting inventions from the inception of Depositor’s business through the Effective Date of this Agreement, (ii) a digital copy of the laboratory notebooks described above in Section 1(a)(i), and (iii) a master inventory list referencing each deposited laboratory notebook, including without limitation, its assigned number and the individual to

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

whom the laboratory notebook was issued (collectively the (“Deposit Materials”) to be deposited in Escrow Associates’ Atlanta, Georgia facility. Depositor shall complete and deliver with all Deposit Materials a form as shown herein as Exhibit B, which shall then become part of this Agreement. Upon receipt of the initial deposit, Escrow Associates will verify (i) the total number of laboratory notebooks, (ii) that each laboratory notebook listed on the master inventory list is included in the initial deposit and (iii) that the individual to whom the laboratory notebook was issued as listed in each laboratory notebook corresponds to the same individual noted on the master inventory list. In the event that Deposit Materials (initial or subsequent updates) are not clearly labeled as described above or there are other unforeseen issues in receiving, inventorying or storing the Deposit Materials, Escrow Associates reserves the right to invoice (as provided for on Exhibit A hereto) for time associated with sorting Deposit Materials, communicating with Depositor to correctly identify and label Deposit Materials or other time spent outside of normal services defined herein. Escrow Associates will provide a written estimate to Beneficiary for such services and obtain written approval before commencing such work . Escrow Associates will notify Beneficiary and Depositor of the results of such verification, expressly noting any discrepancies within [\*\*] business days of receipt of the initial Deposit Materials. Any additional verification services shall be as mutually agreed upon in writing between Escrow Associates and Beneficiary. Escrow Associates has no obligation with respect to the initial Deposit Materials for delivery, functionality, completeness, or initial quality.

(b) Deposit Material Updates - Depositor shall promptly submit any updates to the initial Deposit Materials to Escrow Associates. Depositor shall complete and deliver with all updates to the Deposit Materials an amended Exhibit B form, which shall additionally become part of this Agreement. Upon receipt of the updated deposit, Escrow Associates will verify (i) the total number of laboratory notebooks included in the update, (ii) that each laboratory notebook listed on the updated master inventory list is included in the update and (iii) that the that the individual to whom the laboratory notebook was issued as listed in each laboratory notebook corresponds to the same individual noted on the master inventory list. Escrow Associates will notify Beneficiary and Depositor of the results of such verification, expressly noting any discrepancies within [\*\*] business days of receipt of updates to the Deposit Materials. Escrow Associates has no obligation with respect to the updates to the Deposit Materials for delivery, functionality, completeness, or initial quality.

(c) Electronic Deposit – In the event Depositor elects to utilize electronic means to transfer the Deposit Materials to Escrow Associates, whether through a service provided by Escrow Associates or other means, Escrow Associates shall not be liable for transmissions that fail in part or in whole, are lost, or are otherwise compromised during transmission. Furthermore, Escrow Associates shall not be liable for any subsequent services that may or may not be delivered as a result of a failed transfer. Escrow Associates shall not be liable to Depositor or Beneficiary for any encrypted update, or any part thereof, that is transmitted over the Internet to Escrow Associates’ FTP Site but is not received in whole or in part, or for which no notification of receipt is given.

(d) Duplication of Deposit Materials - Escrow Associates may duplicate the Deposit Materials only as necessary to comply with the terms of this Agreement. Escrow Associates at its sole discretion may retain a third party for the purpose of duplicating the Deposit Materials only as necessary to comply with the terms herein. All duplication expenses shall be borne by the party requesting duplication. Any such third party shall be bound by the same confidentiality obligations as Escrow Associates and shall not be a direct competitor to either Depositor or Beneficiary. Escrow Associates shall be responsible for the services of such third party as if Escrow Associates had performed such services.

(e) Deposit Material Verification - Escrow Associates may be retained by separate agreement or by alternative means, to conduct a test of the Deposit Materials to determine the completeness and accuracy of the Deposit Materials. Escrow Associates shall not be liable for any actions taken on the part of any third party (other than its subcontractors or affiliates) with regards to the Deposit Materials.

(f) Storage. Escrow Associates shall store all electronic media held under this Agreement in a media vault facility designed specifically for the storage and protection of magnetic media. All papers held under this Agreement will be held in a document archive room designated for storing and protecting paper documents. At all times, Deposit Materials will be stored and protected under the control of Escrow Associates unless otherwise agreed to in writing by all the parties.

## 2. Term

- (a) The term of this Agreement is for a period of one (1) year from the Effective Date (“Initial Term”) and will automatically renew for additional one (1) year terms (“Renewal Term”) (collectively the “Term”). This Agreement shall continue in full force and effect until one of the following events occur: (i) Depositor and Beneficiary provide Escrow Associates with thirty (30) days’ prior written joint notice of their intent to terminate this Agreement; (ii) Beneficiary provides Escrow Associates and Depositor with thirty (30) days’ prior written notice of its intent to terminate this Agreement; (iii) the Agreement terminates under another provision of this Agreement; or (iv) any time after the Initial Term, Escrow Associates provides a sixty (60) days’ prior written notice to the Depositor and Beneficiary of Escrow Associates’ intent to terminate this Agreement. If the Effective Date is not specified above, then the last date noted on the signature blocks of this Agreement shall be the Effective Date. In the event Escrow Associates terminates this Agreement (other than as a result of a Release Condition), unless otherwise agreed in writing by Beneficiary, Depositor consents to the transfer of the Deposit Materials to another reputable, nationally-known escrow agent and Beneficiary and Depositor shall enter into another tri-party escrow agreement among such new escrow agent, Depositor and Beneficiary, with terms that are substantially the same as those contained herein. Escrow Associates shall assist in the orderly transfer of the Deposit Materials to such new escrow agent provided all outstanding fees owed to Escrow Associates have been paid in full, however, Beneficiary shall be responsible for applicable shipping costs.
- (b) Unless the express terms of this Agreement provide otherwise, upon termination of this Agreement, Escrow Associates shall use best efforts to immediately return the Deposit Material to the Depositor or an affiliate thereof. Unless otherwise

directed by Depositor, Escrow Associates will use a commercially recognized overnight common carrier such as Federal Express or United Parcel Service to return the Deposit Material to the Depositor. Escrow Associates will not be responsible for any loss or destruction of, or damage to, such Deposit Material while in the custody of the common carrier. If reasonable attempts to return the Deposit Material to Depositor are unsuccessful, Escrow Associates shall deliver such Deposit Materials to Beneficiary. If reasonable attempts to send the Deposit Material to Beneficiary are unsuccessful, Escrow Associates shall destroy the Deposit Material.

- (c) In the event of the nonpayment of undisputed fees owed to Escrow Associates, Escrow Associates shall provide all parties to this Agreement with written notice of Escrow Associates' intent to terminate this Agreement. Any Party to this Agreement shall have the right to make the payment to Escrow Associates to cure the default. If the past due payment is not received in full by Escrow Associates within [\*\*] calendar days of the date of such written notice, then Escrow Associates shall have the right to terminate this Agreement at any time thereafter by sending written notice to all parties. Escrow Associates shall have no obligation to perform the services under this Agreement (except those obligations that survive termination of this Agreement, which includes the confidentiality obligations in Section 8 so long as any undisputed fees due Escrow Associates under this Agreement remain unpaid.

### 3. Fees

(a) Payment - Upon receipt of signed Agreement or initial Deposit Materials, whichever comes first, Escrow Associates will submit an initial invoice to Beneficiary for the amount shown on Exhibit A attached hereto. If payment is not received, Escrow Associates shall have no obligation to perform its duties under this Agreement. Beneficiary agrees to pay to Escrow Associates all additional fees for services rendered related to this Agreement as shown on Exhibit A to the extent agreed upon by Beneficiary in writing. The fee for any service that is not expressly covered in Exhibit A shall be established by Escrow Associates upon request. Escrow Associates shall not perform any additional services unless agreed upon in writing by Beneficiary. All fees are due within [\*\*] days of Escrow Associates execution of this Agreement. Escrow Associates may amend Exhibit A at any time upon [\*\*] days written notice to Beneficiary and Depositor. For the purpose of clarity, Beneficiary is the sole paying party under this Agreement. Therefore, Escrow Associates releases Depositor or its affiliates or their officers, directors or employees ("Depositor Releasees") from any and all claims or attempts to collect any fees due hereunder from Depositor Releasees. To the extent undisputed fees due Escrow Associates by Beneficiary under this Agreement remain unpaid, Escrow Associates shall not pursue Depositor Releasees or hold them liable for such fees nor shall it place any lien, security interest or the like on or refuse to return Deposit Materials to Depositor as a result of such undisputed fees due Escrow Associates by Beneficiary. If Beneficiary unilaterally terminates the Agreement under Section 1, Beneficiary shall cover all Escrow Associates fees and expenses required to return Deposit Materials to Depositor and shall indemnify Depositor Releasees for all claims, losses and liabilities from Escrow Associates associated with the return of the Deposit Materials to Depositor and Beneficiary's unilateral termination of the Agreement.

(b) Currency - All fees are in U.S. dollars and payment must be rendered in U.S. dollars unless otherwise agreed to in advance by Escrow Associates.

4. **Indemnification** - Anything in this Agreement to the contrary notwithstanding, Depositor at its own expense shall defend and hold Escrow Associates (the "Indemnified Party") fully harmless against any claim or action asserted against the Indemnified Party (specifically including costs and reasonable attorneys' fees associated with any such claim or action) to the extent such claim or action is based on an assertion that Escrow Associates' proper administration of this Agreement, within the scope of this Agreement, infringes any patent, copyright, license or other proprietary right of any third party. When the Indemnified Party has notice of a claim or action, it shall promptly notify Depositor in writing. At its option, Depositor may elect to control defense of such claim or action and may elect to enter into a settlement agreement, provided that no such settlement or defense shall include any admission or implication of wrongdoing on the part of the Indemnified Party without such party's prior written consent, which consent shall not be unreasonably delayed or withheld. Escrow Associates shall have the right to employ separate counsel and participate in the defense of any claim at its own expense.

5. **Representations and Warranties**

- (a) Depositor represents that it lawfully possesses all Deposit Materials provided to Escrow Associates under this Agreement and that any current or future Deposit Materials liens or encumbrances will not prohibit, limit, or alter the rights and obligations of Escrow Associates under this Agreement. Depositor warrants that with respect to the Deposit Materials, Escrow Associates' proper administration of this Agreement will not violate the rights of any third parties.
- (b) Depositor represents that all Deposit Materials are clearly labeled in a manner that will allow Escrow Associates to complete visual inspection and confirmation of receipt of Deposit Materials as described in Section 1 (b) hereto, readable and useable in its then current form; if any portion of such Deposit Material is encrypted, the necessary decryption tools and keys to read such material are deposited contemporaneously.
- (c) Depositor represents that all Deposit Material is provided with all rights necessary for Escrow Associates to verify such Deposit Material or agrees to use commercially reasonable efforts to provide Escrow Associates with any necessary use rights or permissions to use materials necessary to perform verification of the Deposit Material. Depositor agrees to reasonably cooperate with Escrow Associates by providing reasonable access to its scientific personnel for verification Services whenever reasonably necessary.
- (d) Depositor warrants that all Depositor information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Depositor information during the Term of this Agreement.
- (e) Beneficiary warrants that all Beneficiary information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Beneficiary information during the Term of this Agreement.
- (f) Escrow Associates warrants any and all services provided hereunder shall be performed in a workmanlike manner consistent with the measures Escrow Associates takes to protect its own information of a similar nature, but in no case less than a reasonable level of care. Escrow Associates further warrants that Escrow Associates shall maintain all Deposit Materials in a secure, fireproof vault in facilities containing fire-code compliant sprinkler systems and shall take all commercially reasonable efforts necessary to protect and safeguard such Deposit Materials.

6. Release of Deposit Materials - The Deposit Materials will be released to Beneficiary after the receipt of the written request for release only in the event that the release procedure set forth in Exhibit C is followed.

7. Disputes. Any dispute, difference or question relating to or arising among any of the parties concerning the construction, meaning, effect or implementation of this Agreement or the rights or obligations of any party hereof will be submitted to, and settled by arbitration by a single arbitrator chosen by the corresponding Regional Office of the American Arbitration Association in accordance with the Commercial Rules of the American Arbitration Association. The parties shall submit briefs of no more than [\*\*] pages and the arbitration hearing shall be limited to [\*\*] days maximum. The arbitrator shall apply Massachusetts law. Unless otherwise agreed by the parties, arbitration will take place in the city of the party against which arbitration is filed. Any court having jurisdiction over the matter may enter judgment on the award of the arbitrator. Service of a petition to confirm the arbitration award may be made by regular mail or by commercial express mail, to the attorney for the party or, if unrepresented, to the party at the last known business address. If however, Depositor or Beneficiary refuse to submit to arbitration, the matter shall not be submitted to arbitration and Escrow Associates may submit the matter to any court of competent jurisdiction for an interpleader or similar action. Unless adjudged otherwise, any costs incurred by Escrow Associates, including reasonable attorney's fees and costs, shall be divided equally and paid by Depositor and Beneficiary.

8. Confidentiality - Escrow Associates shall have the obligation to implement and maintain commercially reasonable safeguards designed to protect the confidentiality of the Deposit Materials. Except as otherwise required to carry out its duties under this Agreement, Escrow Associates shall hold in strictest confidence and not permit any third party access to, nor otherwise use, disclose, transfer or make available the Deposit Materials except as otherwise provided herein, unless consented to in writing by Depositor. If Escrow Associates receives a subpoena or any other order from a court or other judicial tribunal pertaining to the disclosure or release of the Deposit Material, Escrow Associates will promptly notify the parties to this Agreement unless prohibited by law. After notifying the parties, Escrow Associates may comply in good faith with such order. It shall be the responsibility of Depositor or Beneficiary to challenge any such order; provided, however, that Escrow Associates does not waive its rights to present its position with respect to any such order. Escrow Associates will cooperate with the Depositor or Beneficiary, as applicable, to support efforts to quash or limit any subpoena, at such party's expense. Any party requesting additional assistance shall pay Escrow Associates' standard charges or as quoted upon submission of a detailed request.

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009



## 9. Limitation of Liability.

(a) Except for Escrow Associates' breach of Section 8, under no circumstance shall any party be liable for any special, incidental, or consequential damages (including lost profits) arising out of this Agreement even if such party has been apprised of the possibility of such damages. In performing any of its duties hereunder, Escrow Associates shall not incur any liability to any party for any damages, losses, or expenses, except for Escrow's breach of Section 8, willful misconduct or negligence on the part of Escrow Associates, and it shall not incur any liability with respect to any action taken or omitted in reliance upon any written notice, request, waiver, consent, receipt or other document provided by Authorized Persons which Escrow Associates in reasonably good faith believes to be genuine.

(b) EXCEPT FOR: (I) ANY CLAIMS OF INFRINGEMENT OF ANY PATENT, COPYRIGHT, OR TRADEMARK; (II) LIABILITY FOR DEATH OR BODILY INJURY; (III) NEGLIGENCE OR WILLFUL MISCONDUCT; (IV) ESCROW ASSOCIATES' BREACH OF SECTION 8, OR (V) THE INFRINGEMENT INDEMNIFICATION OBLIGATIONS OF SECTION 4, ALL OTHER LIABILITY RELATED TO THIS AGREEMENT, IF ANY, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, OF ANY PARTY TO THIS AGREEMENT SHALL BE LIMITED TO THE AMOUNT EQUAL TO TWO TIMES THE FEES PAID TO ESCROW ASSOCIATES UNDER THIS AGREEMENT.

## 10. Authorized Persons/Notices

- (a) Authorized Person(s). Depositor and Beneficiary must each authorize and designate at least one person whose actions will legally bind such party ("Authorized Person") who shall be identified in the Authorized Person(s) Notices Table of this Agreement and who may manage the Escrow Associates escrow account through the Escrow Associates website or written instruction. The Authorized Person for each the Depositor and Beneficiary will maintain the accuracy of their name and contact information provided to Escrow Associates during the Term of this Agreement. Beneficiary and Depositor may each add or delete Authorized Person(s) by written notice to Escrow Associates.
- (b) Right to Rely on Instructions. With respect to Release of Deposit Material or the destruction of Deposit Material, Escrow Associates shall rely on instructions from a party's Authorized Person(s). In all other cases, Escrow Associates may act in reliance upon any labeling of Deposit Materials, instruction, instrument, or signature reasonably believed by Escrow Associates to be genuine and from an Authorized Person(s), officer, or other employee of a party. Escrow Associates may assume that such representative of a party to this Agreement who gives any written notice, request, or instruction has the authority to do so. Escrow Associates will not be required to inquire into the truth of, or evaluate the merit of, any statement or representation contained in any notice or document reasonably believed to be from such representative.

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

(c) Notices. Notices shall be deemed received on the third business day after being sent by first class mail, or on the following day if sent by commercial express mail. All notices under this Agreement shall be in writing and addressed and sent to the Authorized Person(s) listed in the space provided below:

DEPOSITOR — Authorized Person(s)/Notices Table

Print Name:            [\*\*]  
Title:                   [\*\*]  
Email Address        [\*\*]  
Address 1             Calando Pharmaceuticals, Inc.  
Address 2             201 S. Lake Avenue Suite 703  
City/State/Province   Pasadena, CA  
Postal/Zip Code       91101  
Phone Number         626.304.3400  
Fax Number           626.304.3401

BENEFICIARY — Authorized Person(s)/Notices Table

Print Name:	[**]	Print Name:	[**]
Title:	[**]	Title:	[**]
Email Address	[**]	Email Address	[**]
Address 1	161 First Street	Address 1	161 First Street
Address 2		Address 2	
City/State/Province	Cambridge, MA	City/State/Province	Cambridge, MA
Postal/Zip Code	02142	Postal/Zip Code	02142
Phone Number	617-551-9600	Phone Number	617-551-9600
Fax Number	617-494-1544	Fax Number	617-494-1544

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	DEPOSITOR		BENEFICIARY
Print Name:	[**]	Print Name:	[**]
Title:	[**]	Title:	[**]
Email Address	[**]	Email Address	[**]
Street Address	Calando Pharmaceuticals, Inc.	Street Address	161 First Street
Province/City/State	Pasadena, CA	Province/City/State	Cambridge, MA
Postal/Zip Code	91101	Postal/Zip Code	02142
Phone Number	626.304.3400	Phone Number	617-551-9600
Fax Number	626.304.3401	Fax Number	617-494-1544
Purchase order #		Purchase order #	

Escrow Associates, LLC  
 Attn: Contracts Administration  
 8302 Dunwoody Place, Suite 150  
 Atlanta, GA 30350 USA  
 Telephone: 800-813-3523  
 Fax: 770-518-2452  
 Email: info@escrowassociates.com

11. Miscellaneous

- (a) Counterparts - This Agreement may be executed in any number of multiple counterparts, each of which is to be deemed an original, and all of such counterparts together shall constitute one and the same instrument.
- (b) Entire Agreement - This Agreement supersedes all prior and contemporaneous letters, correspondences, discussions and agreements among the parties with respect to all matters contained herein, and it constitutes the sole and entire agreement among them with respect thereto.
- (c) Limitation of Effect - This Agreement pertains strictly to the escrow services provided for herein and does not modify, amend or affect any other contract or agreement of one or more of the parties.
- (d) Modification - This Agreement shall not be altered or modified without the express written consent of all parties.
- (e) Bankruptcy Code - All rights and licenses granted under or pursuant to any section of this Agreement are, and shall otherwise be, deemed to be, for purposes of Title 11 United States Bankruptcy Code Section 365(n), licenses of rights to "Intellectual Property" as defined under Section 101(35A) of the Bankruptcy Code. The parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code.

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

(f) Survival of Terms - All obligations of the parties intended to survive the termination of this Agreement, including without limitation, are the provisions of Sections 2 (Term), 3 (Fees), 4 (Indemnification), 5 (Representations and Warranties), 7 (Disputes), 8 (Confidentiality), 9 (Limitation of Liability), and 11 (Miscellaneous) which shall survive the termination of this Agreement for any reason.

(g) Governing Law – The validity, interpretation, and performance of this Agreement shall be governed by the laws of the Commonwealth of Massachusetts, USA, as if performed wholly within the state and without giving effect to the principles of conflicts of laws.

(h) Time of the Essence - Time is of the essence in this Agreement.

(i) Successors and Assigns – No party may transfer or assign this Agreement, in whole or in part, provided however, that upon written notice to the other parties, any party may assign this Agreement to an affiliate, or in connection with a merger, consolidation, or a sale or transfer of all or substantially all of the assets to which this Agreement relates, provided that all obligations of such assigning party are assumed by the assignee. This Agreement shall be binding upon and inure to the benefit of the successors and assigns of the parties.

(j) Additional Beneficiaries. No additional beneficiaries may be added except upon the prior written consent of Depositor and Beneficiary, which consent shall not be unreasonably withheld provided, at a minimum, the addition of such additional beneficiary(ies) shall be subject to the following conditions: (i) access to Deposit Materials by any such additional beneficiary(ies) shall be limited to access reasonably necessary in connection with Retained Products (as defined in the Platform Contract), (ii) such access shall, unless otherwise agreed to by Beneficiary in writing, be limited to a release for a period of [\*\*] business days, at which point such Deposit Materials shall be returned to Escrow Associates or, in the event a termination or a release condition under Exhibit C of this Agreement has occurred, administered in accordance with the terms and conditions of this Agreement governing disposition of the Deposit Materials in the event of termination or the occurrence of the release conditions set forth in Exhibit C, (iii) Beneficiary shall at all times maintain a priority position with regard to access to any Deposit Materials, (iv) Beneficiary's rights pursuant to the Calando/Cerulean Contracts or this Agreement shall not be adversely affected, (v) Depositor shall disclose to Beneficiary the identity of such additional beneficiary(ies), the scope of the requested access, and such additional beneficiary(ies) shall enter into an appropriate written agreement to which Beneficiary shall, at its sole discretion, have the right to join as a party, and (vi) Depositor shall be liable for any costs associated therewith (and shall constitute a Paying Party for purposes of such beneficiary(ies)). For the avoidance of doubt, the release of Depositor and assumption of costs and indemnification obligations set forth in Section 3(a) of the Agreement shall not apply to any activities related to such additional beneficiary(ies).

**Depositor**

Signature: /s/ Christopher Anzalone  
Name: Christopher Anzalone  
Title: Chief Executive Officer  
Company: Calando Pharmaceuticals, Inc.  
Date: 6/22/09  
Contract Negotiated by: \_\_\_\_\_  
Negotiator Telephone: \_\_\_\_\_

**Beneficiary**

Signature: /s/ Jean M. Silveri  
Name: Jean M. Silveri  
Title: General Counsel  
Company: Cerulean Pharma Inc.  
Date: 6/19/09  
Contract Negotiated by: \_\_\_\_\_  
Negotiator Telephone: \_\_\_\_\_

**Escrow Associates, LLC**

Signature: /s/ Chris Smith  
Name: Chris Smith  
Title: President  
Date: 6-18-09

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

**Exhibit A**  
Schedule of Fees

(Initial Year / Renewal)

**Three-Party Agreement** \$ **[\*\*]**

Three-Party escrow agreement includes:

- Contract review & agreement drafting assistance
- Customization & set-up of agreement
- **[\*\*]** updates to escrow deposit material
- FTP depositing services
- Visual Inspection & Reports
- Online account management
- **[\*\*]** Releases & re-depositing of same Deposit Materials per year
  - \$**[\*\*]** per additional release over **[\*\*]**
- Notifications to all parties
- One Deposit account (**[\*\*]** Cu. Ft.) w/ state of the art media vault & Document Archive storage

**Additional Deposit Accounts:** \$ **[\*\*]**

Annual Fee. Includes; **[\*\*]** updates, FTP depositing, visual inspection and Reports, Notifications to all parties, online account access & **[\*\*]** cu. ft. media vault storage allowance. For the avoidance of doubt, any releases above the **[\*\*]** releases set forth above are at the rate of \$**[\*\*]** per additional release.

**Additional Storage** \$**[\*\*]** /Cu. Ft.

**Annual Fee for storage required over and above standard **[\*\*]** Cu. Ft allocation.**

**Hourly Consulting Services (If necessary)**

**Account Specialist** \$ **[\*\*]** / hr.

**Executive** \$ **[\*\*]** / hr.

**Additional Beneficiary:** **Then Current fee Schedule**

Annual fee for efficiently enrolling additional Beneficiary to the existing escrow agreement.

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

**Exhibit B – FA Deposit Account ONLY**

Deposit Materials

Please complete Exhibit B form and enclose a copy with the Deposit Materials or contact us for details on electronic depositing.

**Attn: Vault Manager  
Escrow Associates, LLC  
8302 Dunwoody Place, Suite 150  
Atlanta, GA 30350 USA  
info@escrowassociates.com  
1-800-813-3523**

Company Name: Calando Pharmaceuticals, Inc.

Escrow Associates Deposit Account Name & Number: FA

**Three-Party Agreement**

**Two-Party Agreement**

**New Deposit Account**

**Update to existing Deposit Account**

Please list specific Beneficiaries under a Two-Party Agreement associated with this product/ update or check here to apply to all Beneficiaries:

\_\_\_\_\_  
\_\_\_\_\_

Media Description:

Quantity	Type	Description / Label
_____	DVD/CDR	_____
_____	DAT/DDS Tape	_____
_____	Documentation	_____

Other   
-(i) paper deposit of [\*\*] laboratory notebooks,  
(ii) a digital copy of such laboratory notebooks, and  
(iii) a master inventory list referencing each deposited laboratory notebook

Book Number	Title	No. of Pages	Issued To	Issued On	End Date	Calando/Cerulean Contracts Designation*

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of one page was omitted. [\*\*]

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

Deposit Prepared by: \_\_\_\_\_

Deposit Accepted by (*Escrow Associates*): \_\_\_\_\_

Signed: \_\_\_\_\_

Signed: \_\_\_\_\_

E-mail: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009



**Exhibit B – PA Deposit Account ONLY**

Deposit Materials

Please complete Exhibit B form and enclose a copy with the Deposit Materials or contact us for details on electronic depositing.

**Attn: Vault Manager  
Escrow Associates, LLC  
8302 Dunwoody Place, Suite 150  
Atlanta, GA 30350 USA  
info@escrowassociates.com  
1-800-813-3523**

Company Name: Calando Pharmaceuticals, Inc.

Escrow Associates Deposit Account Name & Number: PA

**Three-Party Agreement**

**Two-Party Agreement**

**New Deposit Account**

**Update to existing Deposit Account**

Please list specific Beneficiaries under a Two-Party Agreement associated with this product/ update or check here to apply to all Beneficiaries:

\_\_\_\_\_  
\_\_\_\_\_

Media Description:

Quantity	Type	Description / Label
_____	DVD/CDR	_____
_____	DAT/DDS Tape	_____
_____	Documentation	_____

Other -(i) paper deposit of [\*\*] laboratory notebooks,  
(ii) a digital copy of such laboratory notebooks, and  
(iii) a master inventory list referencing each deposited laboratory notebook

Book Number	Title	No. of Pages	Issued To	Issued On	End Date	Calando/Cerulean Contracts Designation*

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

Deposit Prepared by:

Deposit Accepted by (*Escrow Associates*):

Signed: \_\_\_\_\_

Signed: \_\_\_\_\_

E-mail: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

**Exhibit B – RA Deposit Account ONLY**

Deposit Materials - Please complete Exhibit B form and enclose a copy with the Deposit Materials or contact us for details on electronic depositing.

**Attn: Vault Manager  
Escrow Associates, LLC  
8302 Dunwoody Place, Suite 150  
Atlanta, GA 30350 USA  
info@escrowassociates.com  
1-800-813-3523**

Company Name: Calando Pharmaceuticals, Inc.

Escrow Associates Deposit Account Name & Number: RA

**Three-Party Agreement**

**Two-Party Agreement**

**New Deposit Account**

**Update to existing Deposit Account**

Please list specific Beneficiaries under a Two-Party Agreement associated with this product/ update or check here to apply to all Beneficiaries:

\_\_\_\_\_  
\_\_\_\_\_

Media Description:

Quantity	Type	Description / Label
_____	DVD/CDR	_____
_____	DAT/DDS Tape	_____
_____	Documentation	_____

Other -(i) paper deposit of [\*\*] laboratory notebooks,  
(ii) a digital copy of such laboratory notebooks, and  
(iii) a master inventory list referencing each deposited laboratory notebook

Book Number	Title	No. of Pages	Issued To	Issued On	End Date	Calando/Cerulean Contracts Designation*

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of three pages were omitted. [\*\*]

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

Deposit Prepared by: \_\_\_\_\_  
Signed: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Date: \_\_\_\_\_

Deposit Accepted by (*Escrow Associates*): \_\_\_\_\_  
Signed: \_\_\_\_\_  
Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**Credit Card/Wire Transfer Payment Form**

**CREDIT CARD PAYMENT INFORMATION**

Company Name / Account Number:  
Credit Card Number:  
Expiration Date:  
Card Type (Amex / Visa / etc.):  
Billing Name:  
Billing Address:  
Billing City State Zip:  
Transaction Amount:  
Escrow Associates Invoice Number:

If you would like Escrow Associates, LLC to charge the above credit card on an annual basis for this fee, please sign below. If at any time you choose to use an alternate method of payment, please notify us (in writing) at least thirty (30) days prior to the escrow account renewal date.

Client Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_

Title: \_\_\_\_\_  
Date: \_\_\_\_\_

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

**WIRE TRANSFER PAYMENT INFORMATION**

Company Name & Address: Escrow Associates, LLC  
8302 Dunwoody Place, Suite 150  
Atlanta, GA 30350

Bank Name & Address: [\*\*]  
Account Number: [\*\*]  
Routing Number [\*\*]

Please contact us directly with any questions! Thank you for your business!

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

## Exhibit C

### Release Of Deposit Materials

Escrow Associates will use the following procedures to process any Beneficiary requests to release Deposit Materials. All notices under this Exhibit C shall be sent pursuant to the terms of Section 10 Authorized Persons/Notices.

1. **Release Conditions.** The Depositor and Beneficiary agree that a request for the release of the Deposit Material shall be based solely on one or more of the following conditions (defined as “Release Conditions”):
  - (a) Beneficiary’s most senior internal legal counsel or outside counsel determines in their professional and reasonable judgment that the Deposit Materials are reasonably necessary for (i) regulatory or governmental purposes, (ii) for litigation purposes, (iii) for the maintenance, prosecution or defense of intellectual property, or (iv) to resolve scientific or technical questions or to make corrections, in either case arising from the illegibility, inaccessibility or other errors in the digital copies of laboratory notebooks Beneficiary received directly from Depositor pursuant to the Calando/Cerulean Contracts; or
  - (b) the liquidation, termination of existence, dissolution, insolvency or business failure of the Depositor, or the appointment of a receiver or custodian for the Depositor or any part of its property; or
  - (c) the institution by or against the Depositor of any proceedings under the United States Bankruptcy Code or any other federal or state bankruptcy, reorganization, receivership, insolvency or other similar law affecting the rights of creditors generally or the making by the Depositor of a composition or an assignment or trust mortgage for the benefit of creditor; or
  - (d) Beneficiary in its sole discretion, elects to receive the content of the FA Deposit Account established herein, consisting of the following Notebooks: Nos. [\*\*](collectively the “Full Access Notebooks”) as such Full Access Notebooks are further described in Exhibit D of this Agreement - Laboratory Notebook Master Inventory List, for any purpose related to the Cyclodextrin System or any Licensed Product (the terms “Cyclodextrin System” and “Licensed Product” shall be defined as set forth in the Calando/Cerulean Contracts).

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

2. **Release Request.** Beneficiary may submit a request to Escrow Associates to release the Deposit Material covered under this Agreement, which in the case of a release pursuant to Section 1(a) of this Exhibit C, may include a partial release of the Deposit Materials consisting of the entire contents of one or more Deposit Accounts hereto (i.e., individual Deposit Accounts FA, PA and/or RA, but not individual notebooks). Escrow Associates will send a written notice of this Beneficiary request within [\*\*] business days to the Depositor's Authorized Person(s).
3. **Contrary Instructions.** From the date Escrow Associates mails written notice of the Beneficiary request to release Deposit Material covered under this Agreement, Depositor Authorized Person(s) shall have [\*\*] business days to deliver to Escrow Associates contrary instructions. Contrary instructions shall mean the written representation by Depositor that a Release Condition has not occurred ("Contrary Instructions"). Contrary Instructions shall be on company letterhead and signed by a Depositor Authorized Person. Upon receipt of Contrary Instructions, Escrow Associates shall in good faith and in best effort in [\*\*] business days, but in no event more than [\*\*] business days send a copy to Beneficiary's Authorized Person(s). Additionally, Escrow Associates shall notify both Depositor and Beneficiary Authorized Person(s) that there is a dispute to be resolved pursuant to the Disputes provisions of this Agreement. Escrow Associates will continue to store Deposit Material without release pending (i) joint instructions from Depositor and Beneficiary with instructions to release the Deposit Material; or (ii) dispute resolution pursuant to the Disputes provisions of this Agreement; or (iii) receipt of an order from a court of competent jurisdiction.
4. **Release of Deposit Material.** If Escrow Associates does not receive timely Contrary Instructions from a Depositor Authorized Person in accordance with Section 3 above, Escrow Associates is authorized to release Deposit Material (or to the extent a partial release is requested pursuant to Section 1(a) of this Exhibit C, to release the requested Deposit Material) to the Beneficiary. Escrow Associates is entitled to receive any undisputed, unpaid Service Fees due Escrow Associates only from the Beneficiary before fulfilling the request to release Deposit Material covered under this Agreement. Any Party may cure a default of payment of Service Fees. Beneficiary hereby acknowledges that any contemplated release of Deposit Material under this Exhibit C to Beneficiary is intended to further the objectives, rights and obligations of Beneficiary and Depositor pursuant to the Calando/Cerulean Contracts and that nothing in this Agreement contemplates the assignment or transfer of ownership, title or licensing of rights to Beneficiary in a manner contrary thereto and that title and ownership of the physical Deposit Material shall remain in Depositor.

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

5. **Regulatory/Governmental Request.** Notwithstanding the foregoing Sections 2 and 3, in the event Beneficiary submits a request to Escrow Associates to release the Deposit Material covered under this Agreement, which in the case of a release pursuant to Section 1(a) of this Exhibit C, may include a partial release of the Deposit Materials consisting of the entire contents of one or more Deposit Accounts hereto (i.e., individual Deposit Accounts FA, PA and/or RA, but not individual notebooks), and such request states that the release is required for regulatory or governmental purposes, Escrow Associates shall in lieu of the process set forth in Sections 2 and 3, release in good faith and in best effort in [\*\*] business days, but in no event more than [\*\*] business days such requested Deposit Materials to Beneficiary and contemporaneously send a written notice of the Beneficiary request and confirmation of such release to the Depositor's Authorized Person(s).
6. **Full Access Notebook Request.** Notwithstanding the foregoing Sections 2 and 3, in the event Beneficiary submits a request to Escrow Associates to release any Deposit Materials covered under this Agreement that constitute Full Access Notebooks which in the case of a release pursuant to Section 1(d) of this Exhibit C, shall include the entire contents of the Deposit Account FA only (i.e., individual Deposit Account FA, but not individual notebooks in Deposit Account FA). Escrow Associates shall in lieu of the process set forth in Sections 2 and 3, release in good faith and in best effort in [\*\*] business days but in no event more than [\*\*] business days, such requested Deposit Materials to Beneficiary and contemporaneously send a written notice of the Beneficiary request and confirmation of such release to the Depositor's Authorized Person(s).
7. **Termination of Agreement Upon Release.** This Agreement will terminate upon the release of Deposit Material held by Escrow Associates; provided that, in the case of Section 1(a) of this Exhibit C, in the event only a portion of the Deposit Material is released, this Agreement shall remain in full force in effect. Under such circumstances Beneficiary shall be completely responsible for any and all monies due Escrow Associates; and Escrow Associates shall have no recourse to seek any outstanding monies from Depositor.
8. **Right to Use Following Release.** Beneficiary has the right under this Agreement to use (a) the Full Access Notebooks Deposit Materials for any purpose related to the Cyclodextrin System or any Licensed Product and (b) all other Deposit Material solely (i) for regulatory or governmental purposes, (ii) for litigation purposes, (iii) for the maintenance, prosecution or defense of intellectual property or (iv) to resolve scientific or technical questions or to make corrections, in either case arising from the illegibility, inaccessibility or other errors in the digital copies of laboratory notebooks Beneficiary received directly from

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009



Depositor pursuant to the Calando/Cerulean Contracts. Notwithstanding the foregoing, the Beneficiary shall not have access to the Deposit Material unless there is a release of the Deposit Materials in accordance with this Agreement. Beneficiary shall be obligated to maintain the confidentiality of the released Deposit Materials as Confidential Information of Depositor in accordance with the Calando/Cerulean Contracts. In the event of a partial release in accordance with Section 1(a) or Section 1(d) of this Exhibit C (unless otherwise required for regulatory, governmental or other legal requirements, or unless either of the release conditions set forth in Sections 1(b) or (c) of this Exhibit C have occurred), Beneficiary shall return such Deposit Materials as soon as possible once Beneficiary has reasonably satisfied the purpose for which such Deposit Materials were released.

9. **Communications.** Depositor and Beneficiary will have access to all communications relating to the escrow deposit account.

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

**Exhibit D**  
**Laboratory Notebook Master Inventory Sheet.**

Book Number	Title	No. of Pages	Issued To	Issued On	End Date	Calando/Cerulean Contracts Designation*

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of four pages were omitted. [\*\*]

\* Pursuant to the Calando/Cerulean Contracts "Full Access = FA", "Partial Access = PA", and "Restricted Access = RA". For the avoidance of doubt, (i) copies of laboratory notebooks provided directly to Beneficiary via the Calando/Cerulean Contracts shall be governed by the use provisions set forth in Section 8.7 of each Calando/Cerulean Contract and (ii) all Deposit Materials released pursuant to this Agreement shall be governed by the use provisions set forth in Exhibit C to this Agreement.

Escrow Associates, LLC U.S. Three-Party Escrow Agreement Cerulean Pharma Inc and Calando Pharmaceuticals, Inc June 2009

**Exhibit L**

**Clinical Trial Sites**

City of Hope National Medical Center  
Gabrail Cancer Center  
Schwartz Gynecologic Oncology  
Chattanooga GYN Oncology  
Decatur Memorial Hospital  
Methodist Hospital Research Institute  
Regents of the University of Minnesota  
Peninsula Cancer Institute and Riverside Gynecology

## AMENDMENT

This AMENDMENT (the "Amendment") is entered into as of February 10, 2012 (the "Amendment Effective Date"), by and between CALANDO PHARMACEUTICALS, INC., a Delaware corporation having its principal place of business at 225 South Lake Avenue, 3rd Floor, Pasadena, CA 91101 ("Calando"), and CERULEAN PHARMA INC., a Delaware corporation, having its principal place of business at 840 Memorial Drive, 5th Floor, Cambridge, Massachusetts 02139 ("Cerulean").

WHEREAS, the Parties are parties to that Platform Agreement, dated as of June 23, 2009, as amended by the First Amendment to Platform Agreement, dated as of November 1, 2010 (the agreement, as so amended, the "Platform Agreement");

WHEREAS, the Parties are parties to that IT-101 Agreement, dated as of June 23, 2009 (the "IT-101 Agreement" and, collectively with the Platform Agreement, the "Agreements");

WHEREAS, Calando wishes to assign certain Patent Rights to Cerulean and Cerulean wishes to accept such assignment;

WHEREAS, in accordance with Section 13.4 of each Agreement, the Parties desire to amend the Agreements as set forth herein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and with the specific intent to be bound hereby, the Parties hereby agree as follows:

1. Definitions. As used in this Amendment, the following terms, whether used in the singular or plural, shall have the following meanings:

1.1 "2012 Assigned IP" means (a) the 2012 Assigned Patent Rights; (b) all inventions disclosed in the 2012 Assigned Patent Rights (other than those disclosed as prior art of a Third Party); and (c) the right to recover for past infringement of the 2012 Assigned Patent Rights.

1.2 "2012 Assigned Patent Rights" means the Patent Rights set forth in Exhibit A and all Counterparts thereof.

1.3 Other Defined Terms. Capitalized terms used, but not defined, herein shall have the meaning ascribed to them in the Agreements, or, if not defined in each Agreement, in the Platform Agreement.

1.4 IT-101. For the sake of clarity, the product IT-101 has been renamed by Cerulean as CRLX101.

2. 2012 Patent Rights.

2.1 Assignment. Calando hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Cerulean, and Cerulean hereby purchases from Calando, all right, title and interest in and to the 2012 Assigned IP for an aggregate purchase price of [\*\*] (the "2012 Assignment Payment").

2.2 Incorporation into Assigned Patent Rights and Assigned IP. The Patent Rights listed in Exhibit A attached to this Amendment are hereby added to Exhibit A to each Agreement, the 2012 Assigned Patent Rights are included in the defined term "Assigned Patent Rights" in each Agreement for all purposes of each Agreement, the 2012 Assigned IP is included in the defined term "Assigned IP" in each Agreement for all purposes of each Agreement, and, following the Amendment Effective Date, the 2012 Assigned Patent Rights and any inventions disclosed therein shall not be considered Licensed Patent Rights or Licensed Know-How, as applicable, or Joint IP under the Agreements.

2.3 Calando Closing Conditions. As of the Amendment Effective Date, Calando shall have executed and delivered to Cerulean a patent assignment in the form attached hereto as Exhibit B (the "2012 Patent Assignment"), and such other instruments of conveyance as Cerulean may reasonably request in order to effect the sale, transfer, conveyance and assignment to Cerulean of valid ownership to the 2012 Assigned IP.

2.4 Cerulean Closing Conditions. As of the Amendment Effective Date, Cerulean shall have executed and delivered to Calando the 2012 Patent Assignment.

2.5 Further Assurances. At any time and from time to time hereafter, Calando, at the Cerulean's request and without further consideration, shall execute and deliver, or cause to be duly executed and delivered (including by its Affiliates and employees), such further instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents and instruments, as may be necessary or as Cerulean may reasonably request to carry out more effectively the provisions and purposes hereof, or to better assure and confirm the rights and remedies of the Parties under this Amendment, including to more effectively transfer, convey and assign to Cerulean, and to confirm Cerulean's title to, all of the 2012 Assigned IP, to put Cerulean in actual possession and control thereof, to assist Cerulean in exercising all rights with respect thereto and to carry out the purpose and intent of this Amendment.

2.6 Payment Coordination. Calando agrees and acknowledges that (a) following the Effective Date but prior to the Amendment Effective Date, Cerulean has incurred out-of-pocket expenses in connection with Cerulean's preparation, filing and prosecution of the 2012 Patent Rights pursuant to Section 7.2(d) of the Agreements, (b) pursuant to Section 7.2(d)(v) of the Agreements, Cerulean retains its right to fully credit such expenses against any other payments due by Cerulean under the Agreements, other than the 2012 Assignment Payment, and (c) the amount of such expenses total US \$[\*\*], which represent expenses totaling US \$[\*\*] from [\*\*] and expenses totaling US \$[\*\*] from [\*\*], as reflected in the email having the subject line "RE: What is the status of the Amendment?" sent from Jean M. Silveri, Senior Vice President, General Counsel of Cerulean, to Thomas A. Haag, Ph.D., Esq., of Fanelli Haag PLLC, as representative of Calando, on February 2, 2012, on or about 12:25 PM EST.

2.7 Warranties. Calando hereby warrants to Cerulean, as of the Amendment Effective Date, that:

(a) Immediately prior to the Amendment Effective Date and the assignments pursuant to Section 2.1 of this Amendment, (i) Calando was the sole, true and lawful owner of, and had good title to, the 2012 Assigned IP, free and clear of all Liens of any kind; (ii) Calando is not, and has not been, bound by any policies or agreements under which the 2012 Assigned IP has been or will be assigned to anyone other than Cerulean; (iii) Calando has the right to sell and transfer to Cerulean good, clear record and title to the 2012 Assigned IP, free and clear of all Liens of any kind; and (iv) upon execution and delivery to Cerulean of this Agreement and the instruments of conveyance referred to in Section 2.2(a) of this Amendment, Cerulean will become the sole, true and lawful owner of, and receive good title to, the 2012 Assigned IP, free and clear of all Liens.

(b) There is no agreement currently in effect pursuant to which Calando has granted any license, right or authority under any 2012 Assigned IP to any person, nor has Calando extended any covenant not to sue under the 2012 Assigned IP to any person.

(c) Calando and its Affiliates have neither sought, applied for nor received any support, funding, resources or assistance from any governmental authority in connection with the development, conception or reduction to practice of the 2012 Assigned IP.

(d) To Calando's Knowledge, (i) all assignments of the 2012 Assigned Patent Rights have been properly executed and recorded; and (ii) with respect to the 2012 Assigned IP, Calando and its Affiliates have not knowingly withheld or misinformed Cerulean with respect to any information relevant to the patentability of the 2012 Assigned IP. Calando has no Knowledge of any information that would preclude it from owning the 2012 Assigned IP (immediately prior to the assignment pursuant to Section 2.1 of this Amendment).

(e) There are no claims pending or, to the actual knowledge of the Calando Representatives, threatened by any person against Calando or any of its Affiliates alleging that Calando's ownership, sale, possession or use of, or disclosure, transfer or assignment to Cerulean of, the 2012 Assigned IP infringes upon or constitutes an unauthorized use of the intellectual property rights of any person, nor is there any known basis for any such claim.

(f) To Calando's Knowledge, no person (including any current or former employee or consultant of Calando) is infringing, violating or misappropriating any of the 2012 Assigned IP.

2.8 Coordination. For purposes of clarity, the Parties agree that clause (b) of Section 10.2 of the Platform Agreement shall be interpreted to include the representations, warranties and covenants made by Calando in this Amendment.

2.9 Survival. The following provisions of this Amendment shall survive the expiration or termination of the Agreements: Sections 2.1, 2.2, 2.3, 2.5, 2.6, 2.8, 2.9, 3 and 4.

3. Notices. For purposes of Section 13.5 of each Agreement, Cerulean's address is hereby amended to 840 Memorial Drive, 5th Floor, Cambridge, Massachusetts 02139, and Calando's address is hereby amended to 225 South Lake Avenue, 3rd Floor, Pasadena, CA 91101.

4. Effect on Agreement. Except as amended by this Amendment, each Agreement shall remain in full force and effect. After the Amendment Effective Date, every reference in each Agreement to the “Agreement” shall mean such Agreement as amended by this Amendment.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed as a sealed instrument in their names by their properly and duly authorized officer's representatives as of the date first above written.

CERULEAN PHARMA INC.

By: /s/ Jean M. Silveri

Name: Jean M. Silveri

Title: SVP, General Counsel

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone

Name: Christopher Anzalone

Title: Chief Executive Officer

Signature Page to Amendment



**Exhibit A**  
**2012 Assigned Patent Rights**

Title: TREATMENT OF CANCER

Application No.

Filing Date

Attorney Docket  
Number

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**Exhibit B**

**ASSIGNMENT OF PATENTS**

**CALANDO PHARMACEUTICALS, INC.**, a Delaware corporation, located at 225 South Lake Avenue, 3rd Floor, Pasadena, CA 91101 (“Assignor”), hereby irrevocably sells, transfers, conveys and assigns to **CERULEAN PHARMA INC.**, a Delaware corporation, located at 840 Memorial Drive, 5th Floor, Cambridge, Massachusetts 02139 USA (“Assignee”), the entire right, title and interest for the United States of America and its territorial possessions and all other countries and patent regions, including all rights of priority and rights to recover for past infringement, in the inventions disclosed in the patents and patent applications identified on Schedule A, together with the entire right, title, and interest in and to all patents and patent applications identified on Schedule A, all divisional, continuation, continuation-in-part, reissue, reexamination, extension or other applications based in whole or in part thereon or which claim priority or are related by terminal disclaimer thereto or therefrom, and all Letters Patent of the United States and all other countries and patent regions worldwide which may or shall be granted on said inventions, or any parts thereof (“Assignment”).

Assignor acknowledges having received consideration for this Assignment and agrees for said consideration to execute all deeds, separate written forms of assignment necessary to perfect the Assignment in specific countries and patent regions, or other instruments, and to do all acts reasonably necessary or proper to assist Assignee in securing the grant of Letters Patent in the United States and in all other countries and patent regions and to vest and confirm in Assignee, its successors and assigns, the legal title to all aforementioned inventions, patents and patent applications.

Assignor does hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and the equivalent authority in each other country and patent region in the world, to issue such Letters Patent as shall be granted upon said inventions or applications based thereon to Assignee, its successors and assigns.

*[Remainder of page left intentionally blank.]*

Witness my hand and seal this 8 day of February, 2012.

**CALANDO PHARMACEUTICALS, INC.**

/s/ Christopher Anzalone

Name: Christopher Anzalone

Title: Chief Executive Officer

**STATE OF CALIFORNIA**

County of Los Angeles

On this 8 day of February, 2012, before me, the undersigned notary public, personally appeared Christopher Richard Anzalone, proved to me through satisfactory evidence of identification, which was CA Drivers License [\*\*], to be the person whose name is signed the preceding document, and acknowledged to me that he signed it voluntarily for its stated purpose.

[affix seal]

Notary Public

My commission expires:

# CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Los Angeles

On Feb 8<sup>th</sup> 2012 before me, Angie Borgo Notary Public  
(Here insert name and title of the officer)

personally appeared Christopher Richard Anzalone

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Angie Borgo  
Signature of Notary Public

(Notary Seal)



## ADDITIONAL OPTIONAL INFORMATION

### DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages \_\_\_\_\_ Document Date \_\_\_\_\_

(Additional information)

### CAPACITY CLAIMED BY THE SIGNER

- Individual (s)  
 Corporate Officer

(Title)

- Partner(s)  
 Attorney-in-Fact  
 Trustee(s)  
 Other \_\_\_\_\_

### INSTRUCTIONS FOR COMPLETING THIS FORM

Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be properly completed and attached to that document. The only exception is if a document is to be recorded outside of California. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signers) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. he/she/they- is /are ) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - ◊ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
  - ◊ Indicate title or type of attached document, number of pages and date.
  - ◊ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document

Assignee hereby accepts this Assignment.

Witness my hand and seal this 10th day of February, 2012.

**CERULEAN PHARMA INC.**

/s/ Jean M. Silveri

Name: Jean M. Silveri

Title: SVP, General Counsel

**COMMONWEALTH OF MASSACHUSETTS**

County of Middlesex

On this 10<sup>th</sup> day of February, 2012, before me, the undersigned notary public, personally appeared Jean M. Silveri, proved to me through satisfactory evidence of identification, which was Personally Known, to be the person whose name is signed the preceding document, and acknowledged to me that he signed it voluntarily for its stated purpose.

[affix seal]

Notary Public

My commission expires:

**Schedule A**  
**Assignment of Patents**

Title: TREATMENT OF CANCER

Application No.

Films Date

Attorney Docket  
Number

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## PLATFORM AGREEMENT

THIS PLATFORM AGREEMENT (“Agreement”), dated as of June 23, 2009 (the “Effective Date”), is by and between CALANDO PHARMACEUTICALS, INC., a Delaware corporation having its principal place of business at 129 North Hill Avenue, Pasadena, California 91106 (hereinafter referred to as “Calando”), and CERULEAN PHARMA INC., a Delaware corporation, having its principal place of business at 161 First Street, Cambridge, Massachusetts 02142 (hereinafter referred to as “Cerulean”).

### INTRODUCTION

WHEREAS, Calando possesses certain proprietary cyclodextrin-based polymer drug delivery systems; and

WHEREAS, Cerulean is engaged in the research, development and commercialization of nanopharmaceuticals and desires to license such drug delivery systems upon the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Calando and Cerulean agree as follows:

### SECTION 1. DEFINITIONS

As used in this Agreement, the following terms, whether used in the singular or plural, shall have the following meanings:

1.1 “Affiliate” means any entity which directly or indirectly controls, is controlled by or is under common control with another entity. For purposes of this Section 1.1, “control” means (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or shares entitled to vote for the election of directors and (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest with the power to direct the management and policies of such non-corporate entities. The Parties acknowledge that, in the case of certain entities organized under the laws of certain countries, the maximum percentage ownership permitted by law for a foreign investor may be less than fifty percent (50%), and in such case such lower percentage shall be substituted in the preceding sentence; provided, that such foreign investor has the power to direct the management and policies of such entity.

1.2 “Annual Net Sales” means the worldwide aggregate Net Sales of a Licensed Product during a calendar year.

1.3 “Arrowhead” means Arrowhead Research Corporation, a Delaware corporation.

1.4 “Assigned IP” means (a) the Assigned Patent Rights; (b) the Patent Files; (c) all inventions disclosed in the Assigned Patent Rights (other than those disclosed as prior art of a Third Party); and (d) the right to recover for past infringement of the Assigned Patent Rights.

1.5 “Assigned Patent Rights” means the Patent Rights set forth in Exhibit A and all Counterparts thereof.

1.6 “Calando Indemnitees” means Calando, its Affiliates, and the agents, directors, officers and employees of Calando and its Affiliates.

1.7 “Calando Liabilities” means any and all liabilities or obligations (whether known or unknown, absolute or contingent, liquidated or unliquidated, due or to become due and accrued or unaccrued, and whether claims with respect thereto are asserted before or after the Effective Date) of Calando.

1.8 “Caltech” means California Institute of Technology.

1.9 “Caltech Agreement” means that License Agreement between Caltech and Calando (formerly known as Insert Therapeutics, Inc.), dated May 22, 2000, as amended on December 10, 2001, January 13, 2003 and June 19, 2009.

1.10 “Caltech Joint Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit B and all Counterparts thereof.

1.11 “Caltech Sole Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit C and all Counterparts thereof.

1.12 “Cerulean Indemnitees” means Cerulean, its Affiliates, and the agents, directors, officers and employees of Cerulean and its Affiliates.

1.13 “Change of Control” means (a) the closing of a merger, tender offer, share exchange, reorganization, consolidation or other similar transaction involving Cerulean in which the persons who beneficially own Cerulean’s voting securities immediately prior to such transaction would, immediately after such transaction, beneficially own less than fifty percent (50%) of the voting securities of the surviving entity; or (b) a sale or other transfer to a Third Party of all or substantially all of Cerulean’s assets or business relating to this Agreement. For purposes hereof, “beneficial ownership” shall have the meaning provided in Rule 13d-3 under the Securities Exchange Act of 1934.

1.14 “Clinical Trial” means any clinical trial of a Licensed Product or any other administration of a Licensed Product prior to receipt of a Regulatory Approval.

1.15 “Collective Patent Rights” means the Assigned Patent Rights and the Licensed Patent Rights.

1.16 “Combination Therapy” means a Licensed Product and a separate pharmaceutical product sold by Cerulean or its Affiliates in combination for co-administration.

1.17 “Commercially Reasonable Efforts” means, with respect to a Licensed Product, taking such actions, exerting such effort and employing such resources as would normally be taken, exerted or employed by a comparably-sized company in the biotechnology industry for a product of similar market potential at a similar stage of its product life as such Licensed Product,



taking into account the phase of development of, and technical risks relating to, the product, the development and proprietary positions of third parties, the regulatory structure involved, the likely cost of goods, the competitiveness and size of the relevant marketplace, and the potential profitability of the product, when utilizing sound and reasonable scientific, business and medical practice and judgment.

1.18 “Confidential Information” means, with respect to a Party (the “Disclosing Party”) all proprietary information, patentable or otherwise, of the Disclosing Party (whether owned by the Disclosing Party or disclosed by a Third Party to the Disclosing Party under an obligation of confidentiality) which is disclosed by or on behalf of such Party to the other Party (the “Receiving Party”) pursuant to and in contemplation of this Agreement, including information pertaining to chemical substances, therapeutic agents, pharmaceutical compositions, drug delivery systems, formulations, processes, techniques, methodologies, data, reports, know-how, expertise, sources of supply, patent positioning and business plans. Confidential Information of the Disclosing Party includes “Proprietary” Information of the “Discloser”, each as defined in the Prior Confidentiality Agreement. The elements of Assigned IP described in Sections 1.4(a), (b) and (c) shall be treated as Confidential Information of Cerulean, except to the extent they have been or are later disclosed by the publication of any patent or patent application. Any sublicense agreements disclosed by a Party to the other Party pursuant to Section 3.3 shall be treated as Confidential Information of the Party entering into such sublicense agreement.

1.19 “Control” or “Controlled” means, with respect to an entity and an item of Know-How or any intellectual property right, the possession of the right (whether by ownership, license or otherwise (other than pursuant to a license granted under this Agreement)) by such entity or its Affiliates, to assign, or grant a license, sublicense or other right to or under, such Know-How or intellectual property right as provided for herein without violating the terms of any agreement or other arrangement with any Third Party.

1.20 “Counterparts” means:

(a) with respect to a patent, the following items, collectively: any patent applications from which such patent issued, and all patents and patent applications described in clause (b) with respect to each such patent application;

(b) with respect to a patent application (including any provisional application), the following items, collectively: (i) all divisionals, continuations and continuations-in-part of such patent application; (ii) any patents (including certificates of correction) issuing from such patent application or any patent application described in clause (i); (iii) all patents and patent applications based on, corresponding to or claiming the priority date(s) of any of the patents and patent applications described in clauses (i) or (ii); (iv) any substitutions, extensions (including supplemental protection certificates), registrations, confirmations, reissues, re-examinations and renewals of any of the patents described in clauses (ii) or (iii); and (v) foreign counterparts of any of the foregoing.

1.21 “Covered” means, with respect to a particular Licensed Product and patent, that, but for a license granted to a Party under a Valid Claim included in such patent, or, with respect to an Assigned Patent Right, but for the assignment of such patent, the manufacture, use, offer for sale, sale or importation of such Licensed Product would infringe such Valid Claim.

1.22 “Cyclodextrin System” means any cyclodextrin-based polymer drug delivery system developed by Calando prior to the Effective Date and any improvements thereto developed during the Term.

1.23 “Cytolysin/Tubulysin Agreement” means the Joint Development Agreement Relating to Cytolysin/Tubulysin between Calando and R&D dated January 31, 2009.

1.24 “FDA” means the United States Food and Drug Administration or any successor agency thereto.

1.25 “Field” means the treatment and/or prevention of disease in humans.

1.26 “First Commercial Sale” means, with respect to a Licensed Product in a country, the first bona fide sale of a Licensed Product following the first receipt of a Regulatory Approval for such Licensed Product to permit use or consumption of such Licensed Product by the general public in such country. Transfers of Licensed Products for Clinical Trial purposes shall not be considered a First Commercial Sale.

1.27 “IND” means a United States investigational new drug application or its equivalent or any corresponding application of another country.

1.28 “IT-101” means the product licensed to Cerulean as the “Licensed Product” pursuant to the IT-101 Agreement.

1.29 “IT-101 Agreement” means the IT-101 Agreement entered into by the Parties on the Effective Date.

1.30 “Know-How” means any ideas, concepts, discoveries, developments, information and inventions, whether or not patentable, including materials, products, laboratory, pre-clinical and clinical data, expertise, know-how, processes, techniques, and any other scientific or technical information.

1.31 “Knowledge” means (a) with respect to Calando, the actual knowledge of the following individuals (together with any knowledge that a person in such person’s position would be expected to obtain given the exercise of reasonably prudent scientific and business diligence in accordance with the standards of companies in the biotechnology industry): [\*\*] (collectively, the “Calando Representatives”); and (b) with respect to Cerulean, the actual knowledge of the following individuals (together with any knowledge that a person in such person’s position would be expected to obtain given the exercise of reasonably prudent scientific and business diligence in accordance with the standards of companies in the biotechnology industry): [\*\*].

1.32 “Licensed IP” means, collectively, the Licensed Know-How and Licensed Patent Rights.

1.33 “Licensed Know-How” means all Know-How Controlled by Calando as of the Effective Date or during the Term which both (a) relates to the Cyclodextrin System and/or Calando’s research and development of Licensed Products or IT-101 and (b) is necessary or reasonably useful to (i) conduct research and development on the Cyclodextrin System, including making improvements thereto, or (ii) research, develop, make, have made, use, market, offer to sell, distribute, sell and/or import Licensed Products or IT-101. Without limiting the generality of the foregoing, Licensed Know-How shall include all Know-How developed, applied or acquired by Calando prior to the Effective Date that (A) pertains to the use of the Cyclodextrin System, (B) is a process for manufacturing the cyclodextrin polymer, or precursors thereto, employed in the Cyclodextrin System, (C) is a process for conjugating or complexing therapeutic agents to the cyclodextrin polymer employed in the Cyclodextrin System, or (D) is data generated by Calando in its research and development of Licensed Products or IT-101.

1.34 “Licensed Patent Rights” means all Patent Rights Controlled by Calando as of the Effective Date or during the Term which both (a) relate to the Cyclodextrin System and/or Calando’s research and development of Licensed Products or IT-101 and (b) are necessary or reasonably useful to (i) conduct research and development on the Cyclodextrin System, including making improvements thereto, or (ii) research, develop, make, have made, use, market, offer to sell, distribute, sell and/or import Licensed Products or IT-101. Without limiting the generality of the foregoing, Licensed Patent Rights shall include the Caltech Joint Patent Rights, the Caltech Sole Patent Rights and the RNAi Patent Rights. For the sake of clarity, the Licensed Patent Rights exclude the Assigned Patent Rights.

1.35 “Licensed Product” means any Product, other than IT-101, in which no therapeutic agent is a Retained Therapeutic Agent.

1.36 “NDA” means a United States new drug application or its equivalent or any corresponding application of another country.

1.37 “Net Sales” means, with respect to a Licensed Product, the gross amount invoiced by Cerulean or its Affiliates on sales or other dispositions of such Licensed Product to a Third Party less the sum of (a) commercially reasonable trade, cash and quantity discounts, (b) credit or allowances given or made for recall, rejection or return of previously sold Licensed Products, (c) commercially reasonable rebates, chargebacks or retroactive price reductions, (d) out-of-pocket charges for insurance, postage, handling, freight and other transportation costs which are invoiced by Cerulean or its Affiliates, (e) government-mandated rebates and (f) customs, duties, surcharges, sales, transfer and other excise taxes levied on the sale, transportation, delivery or use of such Licensed Product, including any tax such as a value added or similar tax or government charge, borne by the seller thereof, other than franchise or income tax of any kind whatsoever.

Net Sales shall not include any transfers of a Licensed Product for clinical trial purposes or any transfers of reasonable quantities of a Licensed Product as samples or as donations.

Net Sales shall not include any transfer between Cerulean and any of its Affiliates for resale. If Cerulean or an Affiliate sells a Licensed Product to a distributor or other Third Party, Net Sales shall be based on the gross amount invoiced by Cerulean or the Affiliate from the sale of Licensed Product to such distributor or Third Party.

If Cerulean or any of its Affiliates makes a sale of a Licensed Product for other than monetary value, such Licensed Product shall be deemed sold hereunder. The gross revenues to be included in Net Sales for any such deemed sales shall be the average price of “arms length” sales by Cerulean and its Affiliates during the calendar quarter in which such deemed sale occurs or, if no such “arms length” sales occurred during such period, during the last calendar quarter in which such “arms length” sales occurred.

If the Licensed Product is sold in combination with another pharmaceutical product as part of a Combination Therapy in a country, then, for the purpose of calculating royalties owed under this Agreement on sales of such Licensed Product, Net Sales shall be the lesser of:

- (i) Net Sales of such Licensed Product in such country, or
- (ii) the product of:

(A) Net Sales of such Combination Therapy (calculated applying the definition of Net Sales hereunder to such Combination Therapy in the same manner as applied to Licensed Product) in such country, and

(B) the fraction  $A/(A+B)$ , where A is the average invoice price of such Licensed Product in such country, and B is the average invoice prices of the other pharmaceutical product(s) in such Combination Therapy in such country; provided, however, that, if in a specific country the other pharmaceutical product(s) in such Combination Therapy are not sold separately in such country but the Licensed Product is sold separately in such country, the fraction shall be  $A/C$ , where A is the average invoice price of the Licensed Product in such country and C is the invoice price of the Combination Therapy; provided, further, however, that, if in a specific country the Licensed Product is not sold separately in such country but the other pharmaceutical products are sold separately in such country, the fraction shall be  $C-B/C$ , where B is the average invoice price of the other pharmaceutical product(s) in the Combination Therapy in such country and C is the invoice price of the Combination Therapy in such country; and provided, further, however, that, if in a specific country neither the Licensed Product nor any of the other pharmaceutical products are sold separately in such country, then the fraction shall be negotiated in good faith by the Parties.

1.38 “Party” means Calando or Cerulean; “Parties” means Calando and Cerulean.

1.39 “Patent Files” means, with regard to the Assigned Patent Rights, the following as in existence on the Effective Date: (a) the complete file histories; (b) all correspondence between Calando and Calando’s outside counsel related to the subject matter of such rights; (c) all internal Calando correspondence related to the subject matter of such rights; (d) copies of prior art searches and search results related to the subject matter of such rights; (e) copies of publications identified in prior art searches; and (f) all opinions or other analyses related to the subject matter of such rights.

1.40 "Patent Right" means any patent application (including any provisional application) or patent, and any Counterpart thereof.

1.41 "Phase 3 Clinical Trial" means a human clinical trial that is prospectively designed to demonstrate statistically whether a Licensed Product is safe and effective to prevent or treat a particular indication in a manner sufficient to obtain Regulatory Approval to market such Licensed Product, or that is otherwise described in 21 CFR 312.21(c) or its foreign counterpart.

1.42 "Prior Confidentiality Agreement" means the Mutual Confidentiality Agreement between the Parties dated February 4, 2009.

1.43 "Product" means a pharmaceutical composition containing a therapeutic agent(s) conjugated or complexed to the Cyclodextrin System.

1.44 "R&D" means R&D Pharmaceuticals, GmbH.

1.45 "R&D SGE Agreement" means the Joint Development Agreement relating to Second Generation Epothilones between Calando and R&D dated January 31, 2009.

1.46 "Regulatory Approval" means, with respect to a Licensed Product in a country or regulatory jurisdiction, any and all approvals (including any applicable governmental price and reimbursement approvals), licenses, registrations, or authorizations of the relevant Regulatory Authority necessary for the manufacture, use, storage, import, transport, promotion, marketing and sale of such Product in such country, including approvals of NDAs.

1.47 "Regulatory Authority" means any applicable government regulatory authority involved in granting approvals for the marketing and/or pricing of a pharmaceutical product in a country or regulatory jurisdiction, including the FDA and foreign equivalents thereof.

1.48 "Relevant Agreement" means each agreement, other than a confidentiality agreement, between Calando and an Affiliate of Calando or a Third Party currently in effect, whether or not relating to the Cyclodextrin System or Licensed Products, including any agreement regarding evaluation, research, development, collaboration, material transfer, manufacture, license, joint venture, non-competition, clinical trial, lease of real property or equipment, line of credit, bank loan or other loan.

1.49 "Required Third Party Payments" means payments (including upfront payments, annual maintenance fees, milestones and earned royalties) made by Cerulean or any of its Affiliates to a Third Party to license Know-How or Patent Rights in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field.

1.50 "Requisite Debt Holder Consent and Release" means that each holder of a promissory note of which Calando is the maker (each a "Note" and, collectively, the "Notes") has irrevocably, in writing, (a) consented to the transactions contemplated by this Agreement and (b) released Cerulean and its Affiliates from, and agreed not to assert against Cerulean or its Affiliates or any of their respective assets (including the Licensed IP, Assigned IP and the

Inventory), any Liens, claims, rights or other interests it has or may have (i) in connection with or as a result of the transactions contemplated hereby, (ii) in, against or relating to any of the Licensed IP, Assigned IP and the Inventory and/or (iii) relating to the Notes or any stock into which the Notes can be converted.

1.51 “Requisite Stockholder Approval” means the approval of the license of the Licensed Patent Rights and Licensed Know-How and sale of the Assigned IP and the Inventory by Calando to Cerulean as contemplated by this Agreement by (a) a majority of the votes represented by the outstanding shares of capital stock of Calando entitled to vote thereon and (b) a majority of the votes represented by the outstanding shares of capital stock of Calando entitled to vote thereon, other than shares of such capital stock held by Arrowhead.

1.52 “Retained Product” means any Product in which each therapeutic agent is a Retained Therapeutic Agent.

1.53 “Retained Therapeutic Agent” means cytolysin (as defined in the Cytolysin/Tubulysin Agreement), tubulysin (as defined in the Cytolysin/Tubulysin Agreement), any SGE or any nucleic acid.

1.54 “RNAi Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit D and all Counterparts thereof.

1.55 “SGE” has the meaning given such term in the R&D SGE Agreement.

1.56 “Sublicense Income” means all amounts received by Cerulean or any of its Affiliates to the extent attributable to a license or sublicense granted to a Third Party of any of the Assigned Patent Rights, Licensed Patent Rights or Licensed Know-How (such Third Party, a “Sublicensee”), including upfront payments, annual maintenance fees, milestone payments (including for development, performance and sales milestones) and earned royalties, but:

(a) amounts received by Cerulean or its Affiliates as payments for performing research, development (other than development milestone payments referenced in the foregoing paragraph of this Section 1.56), manufacturing or commercialization activities undertaken by Cerulean or any of its Affiliates for, or in collaboration with, such Sublicensee will be excluded; provided, that such deduction to Sublicense Income is an amount no greater than the fully-burdened cost for Cerulean or its Affiliates in connection with such activities and all out-of-pocket costs paid by Cerulean or its Affiliates to Third Parties in connection with such activities;

(b) amounts received by Cerulean or its Affiliates from such Sublicensee as the purchase price for Cerulean’s or any of its Affiliates’ debt or equity securities will be excluded; provided, that, with respect to any such securities which are publicly traded on any securities exchange or NASDAQ, such deduction to Sublicense Income is an amount no greater than the fair market value of such debt or equity securities;

(c) if such Sublicensee will also pay an earned royalty on its sale of a Licensed Product, then amounts paid by such Sublicensee to Cerulean or its Affiliates as a transfer price to purchase the relevant Licensed Product or any component thereof will be excluded; and

(d) if such Sublicensee will not also pay an earned royalty on its sale of a Licensed Product, then amounts paid by such Sublicensee to Cerulean or its Affiliates as a transfer price to purchase the relevant Licensed Product or any component thereof will be excluded, but only up to the actual cost of goods of such Licensed Product or component.

1.57 "Third Party," means any person other than the Parties and their Affiliates.

1.58 "Valid Claim" means a claim of an unexpired issued patent which has not been withdrawn, cancelled or disclaimed nor held invalid or unenforceable by a court of competent jurisdiction in an unappealed or unappealable decision.

1.59 Other Defined Terms. The word "person" means any entity or individual. Each of the following definitions is set forth in the section of this Agreement indicated below:

<u>Definition</u>	<u>Section</u>
Arrowhead Guarantee	2.3(c)
Bankruptcy Code	3.4
Bill of Sale	2.3(e)
Breaching Party	12.2
Calando Representatives	1.32
Caltech Side Letter	2.3(d)
Disclosing Party	1.18
Escrow Agent	8.7(a)
Escrow Agreement	8.7(a)
FTE Hour	4.1(b)
Full Access Notebooks	8.7(b)
Initial Payment	5.1
Inventory	2.1(a)
Inventory Price	2.1(a)
Joint IP	7.1

Lien	2.3(h)
Losses	10.1
Non-Breaching Party	12.2
Non-Prosecuting Party	7.2(d)
Note(s)	1.50
Partial Access Notebooks	8.7(c)
Patent Assignment	2.3(e)
Prosecuting Party	7.2(d)
Receiving Party	1.18
Restricted Access Notebooks	8.7(d)
Royalty Payment Date	5.6
Sale Event	13.1
Sublicensee	1.57
Term	12.1

## SECTION 2. ASSET SALE AND TRANSFER

### 2.1 Inventory.

(a) Calando hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Cerulean, and Cerulean hereby purchases from Calando, all right, title and interest in and to, [\*\*] of capped beta cyclodextrin, for an aggregate purchase price of [\*\*] U.S. Dollars (US \$[\*\*]), and [\*\*] of poly-beta-cyclodextrin-PEG, for an aggregate purchase price of [\*\*] U.S. Dollars (US \$[\*\*]) (such material, collectively, the “Inventory”). The total purchase price of One Hundred Forty-Three Thousand U.S. Dollars (US \$143,000) (the “Inventory Price”) shall be paid by Cerulean to Calando on the Effective Date via wire transfer of immediately available funds to an account designated by Calando.

(b) The Parties agree and acknowledge that Cerulean’s payment for the Inventory is in addition to the Initial Payment and is inclusive of all excise, sales, use, transfer and other taxes and duties (if any) imposed with respect to the Inventory or its sale by any governmental authority (all of which shall be the responsibility of, and will be paid by, Calando).



(c) Title to and possession of the Inventory will be delivered to Cerulean, free and clear of any encumbrances, on the Effective Date in its current location and condition at the premises of Cambrex Corporation (or one of its Affiliates) in Charles City, Iowa. Cerulean shall be responsible for all expenses and fees related to the storage, removal and transportation of the Inventory from and after the Effective Date, while Calando shall be responsible for all expenses and fees related to the storage, removal and transportation of the Inventory prior to the Effective Date. Risk of loss or damage, liability for, and responsibility to insure the Inventory will pass to Cerulean on the Effective Date.

## 2.2 Patent Rights.

(a) Calando hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Cerulean, and Cerulean hereby purchases from Calando, all right, title and interest in and to the Assigned IP.

(b) The Parties agree and acknowledge that Cerulean's payment for the Assigned IP is included in the Initial Payment and shall be allocated to the Assigned IP for tax purposes.

## 2.3 Calando Closing Conditions. Unless waived by Cerulean, as of the Effective Date, Calando shall have:

(a) obtained the Requisite Stockholder Approval and the Requisite Debt Holder Consent and Release;

(b) delivered to Cerulean a certificate of good standing of Calando in its jurisdiction of organization and the various foreign jurisdictions in which it is qualified, certified charter documents and a certificate as to the incumbency of officers and the adoption of authorizing resolutions;

(c) provided Cerulean with a guarantee and indemnification from Arrowhead, in form and substance reasonably acceptable to Cerulean, in which Arrowhead (i) guarantees Calando's performance under this Agreement, (ii) makes the same representations and warranties to Cerulean as Calando makes to Cerulean under Section 9.1 or clauses (i)-(k) of Section 9.2, and (iii) agrees to indemnify Cerulean to the same extent as Calando indemnifies Cerulean pursuant to Section 10.2 from any Losses relating to or in connection with a Third Party claim arising out of any breach by Arrowhead of its representations or warranties as described in clause (ii), and for which indemnification Calando and Arrowhead shall be jointly and severally liable to Cerulean and the Cerulean Indemnitees (the "Arrowhead Guarantee");

(d) provided to Cerulean a letter agreement executed by Calando and Caltech in the form attached as Exhibit E (the "Caltech Side Letter");

(e) executed and delivered to Cerulean a bill of sale substantially in the form attached hereto as Exhibit F (the "Bill of Sale"), a patent assignment in the form attached hereto as Exhibit G (the "Patent Assignment"), and such other instruments of conveyance as Cerulean may reasonably request in order to effect the sale, transfer, conveyance and assignment to Cerulean of valid ownership to the Assigned IP and Inventory;

(f) made the Patent Files available to Cerulean, it being understood that Calando and Cerulean shall each be obligated to Calando's outside patent counsel for [\*\*] U.S. Dollars, which amount represents [\*\*] percent ([\*\*]%) of the cost of certain foreign patent filings required to be made in June 2009 in respect of the Assigned Patent Rights;

(g) recertified the Inventory prior to the Effective Date in accordance with the testing procedures proscribed by Cerulean, and provided Cerulean with the results thereof;

(h) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, pursuant to which the appropriate Affiliate of Cambrex Corporation acknowledges that the ownership of the Inventory has been transferred to Cerulean and releases such Inventory from any claim, liability, mortgage, pledge, security interest, encumbrance, license, charge, encumbrance or other lien of any kind (whether arising by contract or by operation of law) (each, a "Lien");

(i) made available to Cerulean copies of all laboratory notebooks, raw data, summary data and reports pertaining to the Cyclodextrin System or the Licensed Products, or the research, development or manufacture of the Cyclodextrin System or the Licensed Products, it being understood that the terms and conditions of Section 8.7 shall apply with respect to the laboratory notebooks; and

(j) supplied Cerulean with letters of access, in form and substance reasonably acceptable to Cerulean, addressed to all Third Party contractors and vendors identified by Cerulean pertaining to the research, development or manufacture of the Cyclodextrin System or the Licensed Products.

2.4 Cerulean Closing Conditions. As of the Effective Date, Cerulean shall have:

(a) delivered to Calando a certificate of good standing of Cerulean in its jurisdiction of organization and the various foreign jurisdictions in which it is qualified and a certificate as to the incumbency of officers and the adoption of authorizing resolutions;

(b) executed and delivered to Calando the CalTech Side Letter; and

(c) executed and delivered to Calando the Bill of Sale and the Patent Assignment.

2.5 Non-Assumption of Liabilities. Notwithstanding anything to the contrary, Cerulean shall not assume, or become responsible for, and Calando shall remain responsible for, the Calando Liabilities.

### SECTION 3. LICENSES

3.1 Grant to Cerulean. Calando hereby grants to Cerulean an exclusive (even as to Calando, but subject to Section 12.2(b)), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual (subject to each Party's termination rights in Section 12), royalty-bearing, worldwide license, with the right to grant sublicenses, under the Licensed Patent Rights and under all intellectual property rights in the Licensed Know-How, solely in order to (a)

conduct research and development on the Cyclodextrin System, including making improvements thereto, in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, (b) research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, and (c) use, copy, modify and distribute the Licensed Know-How for such purposes.

3.2 Grant to Calando. Cerulean hereby grants to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable, perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely to the extent necessary to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Retained Products.

3.3 Sublicenses. All sublicenses granted pursuant to Section 3.1 or 3.2 shall be consistent with the terms and conditions of this Agreement and the Party granting such sublicense shall incorporate terms and conditions into its sublicense agreements sufficient to enable such Party to comply with this Agreement. Such Party shall furnish the other Party with a copy of each executed sublicense agreement within [\*\*] business days after its execution.

3.4 Section 365(n) of the Bankruptcy Code. All rights and licenses granted under or pursuant to any section of this Agreement are and shall otherwise be deemed to be for purposes of Section 365(n) of the Bankruptcy Code licenses of rights of “intellectual property” as defined in Section 101(35A) of the United States Bankruptcy Code (Title 11, U.S.C.), as amended (the “Bankruptcy Code”). The Parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. Upon the bankruptcy of a Party, the non-bankrupt Party shall further be entitled to a complete duplicate of, or complete access to, any such intellectual property, and such, if not already in its possession, shall be promptly delivered to the non-bankrupt Party, unless the bankrupt Party elects to continue, and continues, to perform all of its obligations under this Agreement.

3.5 Patent Marking. Cerulean and Calando shall mark the appropriate U.S. patent number(s) on Licensed Products or on Retained Products, respectively, made or sold in the United States in accordance with all applicable government laws, rules and regulations.

#### SECTION 4. POST-CLOSING ASSISTANCE AND COVENANTS

##### 4.1 Technology Transfer.

(a) Within the first [\*\*] months following the Effective Date, Calando shall, and shall cause its employees to, provide to Cerulean, upon Cerulean’s request, such scientific, technical and other assistance as is reasonably necessary for Cerulean to exploit the Licensed Know-How; provided, however, that this Section 4.1(a) shall not require Calando to maintain employment of any employees; provided, further, that Calando shall use commercially reasonable efforts to assist Cerulean in entering into employment or consulting arrangements (at Cerulean’s sole cost) with any former employees of Calando. In addition, Calando shall reasonably assist Cerulean in interacting with Calando’s Third Party contractors and vendors to facilitate Cerulean’s ability to develop the Licensed Products and exploit the Licensed Know-How; provided, that Calando makes no representations or warranties as to such Third Party

contractors' or vendors' intentions to conduct business with Cerulean following the Effective Date. To the extent that Cerulean hires or engages the services of any former employee of Calando or any Third Party contractor or vendor of Calando for purposes contemplated under this Agreement, Calando hereby waives any obligations of confidentiality or non-use or any non-competition restrictions imposed on such employees, contractors or vendors to the extent that they pertain to Licensed Products or the use of the Cyclodextrin System in connection with Licensed Products.

(b) Cerulean shall reimburse Calando (i) for the assistance described in Section 4.1(a) at the rate of [\*\*] U.S. Dollars (US \$[\*\*]) for each hour of scientific, technical or other work in providing such assistance (each, an "FTE Hour") and (ii) for all reasonable out-of-pocket expenses incurred by Calando in providing such assistance, to the extent such assistance and expenses have been approved by Cerulean in writing in advance of incurrence. Within [\*\*] days after the end of each calendar month during such [\*\*] month period, Calando shall provide to Cerulean a report of the number of FTE Hours actually devoted, and the expenses actually incurred, by Calando for such assistance during such just-ended calendar month, and an invoice for the amount to be reimbursed by Cerulean as provided hereunder. Cerulean shall pay such invoice within [\*\*] days after receipt. For the sake of clarity, there shall be no double payments for any assistance which may be provided under both this Agreement and the IT-101 Agreement.

(c) Calando shall keep true and accurate books of accounts and other records containing all information and data which may be necessary to ascertain and verify the amounts payable under this Section 4.1. During the first [\*\*] months after the Effective Date, Cerulean shall have a [\*\*] right to have an independent certified public accountant inspect such books and records of Calando. Any such independent certified accountant shall be reasonably acceptable to Calando, shall execute a standard form of confidentiality agreement with Calando, and shall be permitted to share with Cerulean solely its findings with respect to the accuracy of the amounts reported as payable under this Section 4.1.

#### 4.2 Caltech Agreements.

(a) Calando shall not amend, restate, alter, waive or otherwise change any of the terms and conditions of the Caltech Agreement or Caltech Side Letter without the prior written approval of Cerulean, which approval shall not be unreasonably withheld, conditioned or delayed. Calando shall provide Cerulean with a copy of any proposed or executed amendment, restatement, alteration, waiver or other change of the terms and conditions of the Caltech Agreement or Caltech Side Letter. Further, Calando shall not assign (other than in connection with a Sale Event) or terminate the Caltech Agreement or Caltech Side Letter without the prior written approval of Cerulean, which approval shall not be unreasonably withheld, conditioned or delayed.

(b) Calando shall use commercially reasonable efforts to satisfy all of its obligations under and to take all steps necessary to maintain in full force and effect the Caltech Agreement or Caltech Side Letter. Calando shall provide Cerulean with written notice of any claim of a breach under, or any threat or notice of termination of, the Caltech Agreement or Caltech Side Letter.

4.3 **SGE Agreement.** Upon Cerulean’s request, Calando shall use commercially reasonable efforts to assist Cerulean in the negotiation of an agreement among Calando, Cerulean and R&D, pursuant to which Cerulean shall obtain rights to the SGEs on terms and conditions comparable to those in this Agreement.

4.4 **Further Assurances.** At any time and from time to time hereafter, each Party, at the other Party’s request and without further consideration, shall execute and deliver, or cause to be duly executed and delivered (including by its Affiliates and employees), such further instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents and instruments, as may be necessary or as the requesting Party may reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes hereof, or to better assure and confirm the rights and remedies of the Parties under this Agreement, including to more effectively transfer, convey and assign to Cerulean, and to confirm Cerulean’s title to, all of the Assigned IP and Inventory, to put Cerulean in actual possession and control thereof, to assist Cerulean in exercising all rights with respect thereto and to carry out the purpose and intent of this Agreement. Other than those obligations expressly set forth herein, Cerulean shall not assume or agree to perform, pay or discharge, and Calando shall remain unconditionally liable, for the Calando Liabilities.

## SECTION 5. FEES AND ROYALTIES

5.1 **Fees.** In addition to the Inventory Price, Cerulean shall pay on the Effective Date a one-time, non-refundable, non-creditable purchase and license fee in the amount of One Million U.S. Dollars (US \$1,000,000) (the “**Initial Payment**”). In addition, Cerulean shall reimburse Calando for [\*\*] U.S. Dollars (\$[\*\*]), which amount represents the cost incurred by Calando in recertifying the Inventory and certain of the inventory being transferred under the IT-101 Agreement. The foregoing amounts shall be distributed as follows: (a) [\*\*] U.S. Dollars (\$[\*\*]) shall be paid by Cerulean directly to the applicable Third Party as set forth in **Exhibit H**, on behalf of Calando, on the Effective Date; (b) [\*\*] U.S. Dollars [\*\*] Cents (\$[\*\*]), which amount represents the legal fees incurred by Calando in connection with its negotiation of this Agreement and the IT-101 Agreement, shall be paid by Cerulean directly to [\*\*], on behalf of Calando, on the Effective Date; and (c) [\*\*] (\$[\*\*]) shall be paid by Cerulean to Calando via wire transfer of immediately available funds to an account designated by Calando, on the Effective Date.

### 5.2 Development Milestones.

(a) For each Licensed Product developed by Cerulean or an Affiliate of Cerulean that reaches the following development milestones, Cerulean shall pay the applicable non-refundable milestone payment set forth below, subject to Sections 5.2(b) and 5.2(c), within [\*\*] days of the occurrence of such event to Calando via wire transfer of immediately available funds to an account designated by Calando:

<u>Milestone Event:</u>	<u>Milestone Payment:</u>
(i) The filing of the first IND with any Regulatory Authority	Two Hundred Fifty Thousand U.S. Dollars (US \$250,000)
[**]	[**] U.S. Dollars (US \$[**])
[**]	[**] U.S. Dollars (US \$[**])
[**]	[**] U.S. Dollars (US \$[**])

(b) Such milestone payments shall be made only if, upon the occurrence of such milestone event, a Valid Claim of a Collective Patent Right exists in any country of the world. All development milestone payments made with respect to a Licensed Product shall be fully credited to all royalties due under Section 5.5 with respect to such Licensed Product.

(c) If, following the achievement of any such milestone event for a particular Licensed Product, Cerulean or its Affiliate decides not to progress such Licensed Product further through the development or commercialization process for any reason, then the milestone payments already paid by Cerulean with respect to such failed Licensed Product shall be fully credited against future milestone payments due under this Section 5.2 with respect to the next Licensed Product progressed through such milestone event(s).

### 5.3 Sales Milestones.

(a) For each Licensed Product developed by Cerulean or an Affiliate of Cerulean which reaches the following sales thresholds, Cerulean shall pay the applicable non-refundable, non-creditable milestone payment set forth below, subject to Section 5.3(b), within [\*\*] days after the occurrence of such event to Calando via wire transfer of immediately available funds to an account designated by Calando:

<u>Milestone Event:</u>	<u>Milestone Payment:</u>
(i) Annual Net Sales of [**] U.S. Dollars (US \$[**])	[**] U.S. Dollars (US \$[**])
(ii) Annual Net Sales of [**] U.S. Dollars (US \$[**])	[**] U.S. Dollars (US \$[**])

(b) Such milestone payments shall be made only if, upon the occurrence of such milestone event, a Valid Claim of a Collective Patent Right exists in any country of the world. Each such payment shall be made once for each such Licensed Product to reach the relevant milestone event.

5.4 Sublicense Income. With respect to Licensed Products developed and sold by a Sublicensee, Cerulean shall pay to Calando [\*\*] percent ([\*\*]%) of all Sublicense Income; provided, however, that (a) such payments shall be made only if, at the time of Cerulean's or its Affiliate's receipt of Sublicense Income, a Valid Claim of a Collective Patent Right exists in any country of the world; and (b) the percentage of Sublicense Income due Calando for earned royalties (but not for upfront payments, milestones or maintenance fees) will be capped at the royalty rates under Section 5.5 that would apply if such sales were made by Cerulean or an Affiliate of Cerulean.

## 5.5 Royalties.

### (a) Base Rate.

(i) For each Licensed Product sold by Cerulean or an Affiliate of Cerulean, Cerulean shall pay to Calando (subject to Sections 5.2(b), 5.5(b), 5.5(c) and 5.5(d)) the following tiered earned royalties on Annual Net Sales (on a Licensed Product-by-Licensed Product basis) of each Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is, or would be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right:

<u>Annual Net Sales Tiers:</u>	<u>Royalty Rate:</u>
The portion of Annual Net Sales which is less than or equal to US \$[**]	[**]%
The portion of Annual Net Sales which is greater than US \$[**], but less than or equal to US \$[**]	[**]%
The portion of Annual Net Sales which is greater than US \$[**]	[**]%

(ii) For each Licensed Product sold by Cerulean or an Affiliate of Cerulean, Cerulean shall pay to Calando (subject to Sections 5.2(b), 5.5(b), 5.5(c) and 5.5(d)) the following tiered earned royalties on Annual Net Sales (on a Licensed Product-by-Licensed Product basis) of each Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is not, and would not be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right:

<u>Annual Net Sales Tiers:</u>	<u>Royalty Rate:</u>
The portion of Annual Net Sales which is less than or equal to US \$[**]	[**]%
The portion of Annual Net Sales which is greater than US \$[**], but less than or equal to US \$[**]	[**]%
The portion of Annual Net Sales which is greater than US \$[**]	[**]%

### (b) Royalty Term.

(i) Royalties on such Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is, or would be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right shall be payable until the expiration of such Valid Claim.

(ii) Royalties on such Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is not, and would not be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right shall be payable if such sale occurs within the first ten (10) years after the First Commercial Sale of such Licensed Product in such country; provided, however, that, at the time of such manufacture, use or sale, a Valid Claim of a Collective Patent Right exists in any country of the world.

(iii) Once the royalty obligations hereunder end with respect to a Licensed Product in a country of sale, Cerulean shall have a fully paid-up, non-exclusive, perpetual license, under the Licensed Patent Rights, and under all intellectual property rights in the Licensed Know-How, to research, develop, make, have made, use, market, offer to sell, distribute, sell and import such Licensed Product in any country in order to sell such Licensed Product in the Field in such country and to use, copy, modify and distribute the Licensed Know-How for such purposes.

(c) The obligation to pay royalties shall be imposed only once, at the point of the first sale, with respect to a particular unit of Licensed Product.

(d) Cerulean shall be entitled to deduct from the royalty payments it makes pursuant to Section 5.5(a) with respect to a Licensed Product [\*\*] percent ([\*\*]%) of Required Third Party Payments with respect to such Licensed Product; provided, that, in no event shall a deduction under this Section 5.5(d) reduce any royalty payment payable by Cerulean pursuant to Section 5.5(a) by more than [\*\*] percent ([\*\*]%). Cerulean shall be entitled to carry forward any unused amounts against future royalty payments payable by Cerulean hereunder with respect to such Licensed Product, until such unused amounts are fully offset.

(e) Calando shall remain solely responsible for any payments owed under the Caltech Agreement.

5.6 Reports and Payment. Commencing with the calendar quarter in which the First Commercial Sale of a Licensed Product occurs in any country in the world and continuing during the Term, Cerulean shall deliver to Calando, within [\*\*] days after the end of each calendar quarter (the "Royalty Payment Date"), (a) a written report showing Cerulean's computation of Sublicense Income due under this Agreement for such calendar quarter on a Licensed Product-by-Licensed Product basis, (b) a written report showing Cerulean's computation of royalties due under this Agreement for such calendar quarter on a country-by-country and a Licensed Product-by-Licensed Product basis and (c) payment of the Sublicense Income and royalties shown to be due under this Agreement for such calendar quarter via wire transfer of immediately available funds to an account designated by Calando. With respect to sales of Licensed Products invoiced in United States Dollars, the sales and royalties payable shall be expressed in United States Dollars. With respect to sales of Licensed Products invoiced in a currency other than United States Dollars, the sales and royalties payable shall be expressed in their United States Dollar equivalent calculated using the applicable conversion rates for buying United States Dollars published by The Wall Street Journal on the last business day of the calendar quarter to which the royalty report relates. All Sublicense Income and royalty payments shall be made in United States Dollars.



5.7 Right to Setoff. If Calando and/or Arrowhead fails to indemnify a Cerulean Indemnitee as contractually provided for in Section 10.2, then Cerulean may, at its option and upon written notice to Calando, setoff such amount from any amounts owed by Cerulean to Calando pursuant to Sections 5.2, 5.3, 5.4 or 5.5 of this Agreement.

5.8 Tax Withholding. Cerulean shall use reasonable and legal efforts to reduce tax withholding payments to be made to Calando. Notwithstanding the foregoing, if Cerulean concludes that tax withholdings under the laws of any country are required with respect to payments to Calando, Cerulean shall withhold the required amount and pay it to the appropriate governmental authority. In any such case, Cerulean shall promptly provide Calando with original receipts or other evidence reasonably desirable and sufficient to allow Calando to document such tax withholdings for purposes of claiming foreign tax credits and similar benefits.

5.9 Records. Cerulean shall keep, and shall require its Affiliates and Sublicensees to keep, true and accurate books of accounts and other records containing all information and data which may be necessary to ascertain and verify the royalties and other amounts payable by Cerulean under this Agreement. During the Term and for a period of [\*\*] years thereafter, Calando shall have the right from time to time (not to exceed [\*\*]) (a) to have an independent certified public accountant inspect such books and records of Cerulean and its Affiliates or (b) to require that Cerulean have an independent certified public accountant inspect such books and records of the Sublicensees. Any such independent certified public accountant shall be reasonably acceptable to Cerulean, shall execute a standard form of confidentiality agreement with Cerulean, shall be permitted to share with Cerulean its findings, and shall be permitted to share with Calando solely its findings with respect to the accuracy of the amounts reported as payable under this Agreement. If such audit determines that the royalties paid to Calando pursuant to Section 5.5 for any such audited period were understated, then Cerulean shall, within [\*\*] days of receipt of the audit report, pay to Calando the entirety of such understated amount, plus interest accruing from the Royalty Payment Date until the date that such understated amount is paid at an interest rate equal to the lesser of (i) [\*\*] percent ([\*\*]%) per annum or (ii) the highest interest rate allowable by law. If such audit determines that the royalties paid to Calando pursuant to Section 5.5 for any such audited period were understated by an amount equal to or greater than [\*\*] percent ([\*\*]%) of what was owed, then Cerulean shall reimburse Calando for any reasonable out-of-pocket costs of such audit paid by Calando.

## SECTION 6. DILIGENCE

6.1 Diligence. Cerulean, through itself, its Affiliates or sublicensees, shall use Commercially Reasonable Efforts to develop Licensed Products in the Field and, following the First Commercial Sale of a Licensed Product in a particular country, to make such Licensed Product commercially available in such country. In addition, if, at any time prior to the fourth (4<sup>th</sup>) anniversary of the Effective Date, there occurs a Change of Control of Cerulean, then Cerulean (or its successor, as applicable), together with its Affiliates and sublicensees, shall expend a minimum of Seven Hundred Fifty Thousand U.S. Dollars (US \$750,000) to research, develop, manufacture and/or commercialize the Cyclodextrin System and/or Licensed Products,

during each Diligence Period; provided, however, that, in lieu of such expenditure, Cerulean (or its successor, as applicable) may pay such amount (or any portion of such amount not so expended) to Calando within [\*\*] days after the end of such Diligence Period. Such amount shall be pro-rated for any Diligence Period which is less than twelve months in length. "Diligence Period" means the twelve (12) month period beginning upon such Change of Control, and each succeeding twelve (12) month period thereafter, but no Diligence Period shall begin after, or extend past, the fourth (4<sup>th</sup>) anniversary of the Effective Date.

6.2 Performance Reports. Cerulean agrees to provide [\*\*] performance reports to Calando within [\*\*] calendar days of a written request by Calando, which shall be no more frequent than [\*\*]. These performance reports shall describe all research and development efforts for Licensed Products (on a Licensed Product-by-Licensed Product basis) since the last performance report. After the [\*\*], such Licensed Product need not be included in subsequent [\*\*] reports; provided, however, that Cerulean shall continue to report on all other Licensed Products.

6.3 Conformity with Caltech Agreement. If, and to the extent, that Caltech, pursuant to Section 5.2 of the Caltech Agreement, requires Calando to report on the progress of introducing commercial Licensed Products in the United States, Calando shall promptly (but in any event within [\*\*] business days) report such requirement to Cerulean and Cerulean shall promptly (within [\*\*] days thereafter) provide a written report thereof to Calando and Calando shall promptly (but in any event within [\*\*] business days) provide such report to Caltech.

6.4 Compliance with Laws. Each Party shall, and shall ensure that its Affiliates and sublicensees shall, comply with all applicable laws in exercising their rights and fulfilling their obligations under this Agreement.

## SECTION 7. INTELLECTUAL PROPERTY

7.1 Ownership. As between the Parties, (a) all Know-How developed, conceived or reduced to practice after the Effective Date solely by employees and consultants of Cerulean or its Affiliates, and all intellectual property rights in the foregoing, shall be owned solely by Cerulean, and (b) all Know-How developed, conceived or reduced to practice after the Effective Date solely by employees and consultants of Calando or its Affiliates, and all intellectual property rights in the foregoing, shall be owned solely by Calando. While the Parties do not anticipate that any Know-How will be jointly developed, if any Know-How is developed, conceived or reduced to practice after the Effective Date jointly by employees and consultants of Cerulean or its Affiliates, on the one hand, and Calando or its Affiliates, on the other hand, such Know-How and all intellectual property rights therein (such Know-How and intellectual property rights, collectively, "Joint IP"), shall be owned jointly by Cerulean and Calando, on the basis of an undivided interest. Subject to the licenses granted to Cerulean pursuant to Section 3.1 and pursuant to the IT-101 Agreement, each Party shall have the right to fully exploit the Joint IP, and to sublicense such Party's rights under the Joint IP, without a duty to account to the other Party. If any patentable Joint IP is conceived or reduced to practice, the Parties shall negotiate in good faith reasonable rights and responsibilities of the Parties to prosecute and enforce such Joint IP. Inventorship, for the purposes of this Section 7.1, shall be determined by the Parties in good faith in accordance with United States patent laws.

## 7.2 Patent Prosecution.

(a) Assigned Patent Rights. Cerulean shall have the sole right, at its own expense and in its own name, to prepare, file, prosecute and maintain the Assigned Patent Rights. If Cerulean determines to discontinue the prosecution or maintenance of any patent application or patent within such Assigned Patent Rights, Cerulean shall promptly notify Calando, sufficiently in advance of any deadlines to ensure that no rights with respect thereto are lost, and thereupon, Calando shall have the right, at its own expense, to prosecute and maintain any such Patent Right.

(b) RNAi Patent Rights. Calando shall have the sole right, at its own expense and in its own name, to prepare, file, prosecute and maintain the RNAi Patent Rights.

(c) Caltech Patent Rights. The Parties agree and acknowledge that, with respect to the Caltech Joint Patent Rights and the Caltech Sole Patent Rights, as set forth in the Caltech Agreement, Caltech has the right to prosecute such Patent Rights, Calando has the right to comment on such prosecution and Calando pays the patent costs thereof, but that:

(i) Calando shall use reasonable efforts to cause Caltech to promptly provide Calando with copies of all material correspondence received from any patent counsel or patent authority pertaining to such Patent Rights;

(ii) Calando shall promptly provide Cerulean with copies of all correspondence received by Calando from Caltech from any patent counsel or patent authority pertaining to such Patent Rights;

(iii) Calando shall provide Cerulean, sufficiently in advance of any deadline for Cerulean to comment, with copies of all patent applications and other submissions and correspondence with any patent counsel or patent authority pertaining to such Patent Rights, and shall use reasonable efforts to ensure that Caltech gives due consideration to Cerulean's comments; and

(iv) in the event of the bankruptcy or other insolvency of Calando or a termination, for any reason, of the Caltech Agreement, as between the Parties, the provisions of the Caltech Side Letter shall supersede any conflicting provisions of this Section 7.2(c) and the Caltech Agreement.

(d) Other Licensed Patent Rights. Calando shall have the initial right, at its own expense and in its own name, to prepare, file, prosecute and maintain any Licensed Patent Rights other than the Caltech Joint Patent Rights, Caltech Sole Patent Rights and RNAi Patent Rights. If Calando determines not to prepare or file any patent application covering any Licensed Know-How or determines to discontinue the prosecution or maintenance of any patent application or patent within such Licensed Patent Rights, Calando shall promptly notify Cerulean, sufficiently in advance of any deadlines to ensure that no rights with respect thereto are lost, and thereupon, Cerulean shall have the right, at its own expense, to prepare, file, prosecute and maintain any such Patent Right. With respect to the preparation, filing, prosecution and maintenance of such Licensed Patent Rights:

(i) the Party not preparing, filing, prosecuting or maintaining such patent or patent application (the "Non-Prosecuting Party") shall, at the reasonable request of the other Party (the "Prosecuting Party"), assist and cooperate in the filing, prosecution and maintenance of such Patent Rights;

(ii) the Prosecuting Party shall provide the Non-Prosecuting Party, sufficiently in advance of any deadline for the Non-Prosecuting Party to comment, with copies of all patent applications and other submissions and correspondence with any patent counsel or patent authority pertaining to such Patent Rights;

(iii) the Prosecuting Party shall give due consideration to the Non-Prosecuting Party's comments, but the Prosecuting Party shall have the final say in determining whether or not to incorporate such comments;

(iv) each Party shall promptly provide the other with copies of all correspondence received from any patent counsel or patent authority pertaining to such Patent Rights; and

(v) if Cerulean is preparing, filing, prosecuting or maintaining Licensed Patent Rights, Cerulean may fully credit any out-of-pocket expenses incurred by Cerulean in connection therewith against any other payments due by Cerulean hereunder.

### 7.3 Enforcement.

(a) Notice. Each Party shall promptly (but within no more than [\*\*] days) report in writing to the other Party during the Term any suspected infringement of the Collective Patent Rights (including any "patent certification" filed in the United States under 21 U.S.C. §355(b)(2) or 21 U.S.C. §355(j) (2) or similar provisions in other jurisdictions), any declaratory judgment, opposition, or similar action alleging the invalidity, unenforceability or non-infringement of the Collective Patent Rights, or any suspected unauthorized use or misappropriation of any Licensed Know-How or of the other Party's Confidential Information, of which it becomes aware, and shall provide the other Party with all available evidence supporting such suspected infringement, action or unauthorized use or misappropriation.

(b) Enforcement of Assigned Patent Rights. Cerulean shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Assigned Patent Rights.

(c) Enforcement of RNAi Patent Rights. Calando shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the RNAi Patent Rights.

(d) Enforcement of Licensed Patent Rights other than RNAi Patent Rights.

(i) Cerulean shall have the first right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Licensed Patent Rights other than the RNAi Patent Rights, or using without proper authorization all or any portion of the Licensed Know-How, by researching, developing,

making, having made, using, marketing, offering to sell, distributing, selling or importing any product that falls within the scope of the definition of “Licensed Product” (but not a product that falls within the scope of the definition of “Retained Product”). Calando shall join as a party to any such suit brought by Cerulean, if requested by Cerulean, but shall be under no obligation to participate except to the extent that such participation is required as the result of being a named party to the suit. Upon Cerulean’s request, Calando shall provide reasonable assistance to Cerulean in connection therewith at no charge to Cerulean except for reimbursement of Calando’s reasonable out-of-pocket expenses (including reasonable attorneys’ fees) incurred in rendering such assistance. Any recoveries resulting from such action (whether in the form of damages, royalties, settlement payments or otherwise) shall first be applied to reimburse Cerulean for all out-of-pocket expenses incurred in connection with such proceeding (and any out-of-pocket expenses of Calando paid by Cerulean) and (A) to the extent that the remaining recovery represents lost profits, such remaining recovery shall be retained by Cerulean, with Calando entitled to receive an amount equal to the royalties that would have been due Calando on sales of the relevant Licensed Product lost by Cerulean as a result of the infringement and (B) to the extent that the remaining recovery represents punitive or other damages, Cerulean shall be entitled to [\*\*] percent ([\*\*]%) of such remaining recovery and Calando shall be entitled to [\*\*] percent ([\*\*]%) of such remaining recovery.

(ii) If, within [\*\*] days after notification of an infringement of the Licensed Patent Rights with respect to which Cerulean would have the first right to bring suit as described in Section 7.3(d)(i), Cerulean has not been successful in persuading the alleged infringer to desist and is not diligently pursuing an infringement action or suit, or has notified Calando of its intent not to bring action or suit against the alleged infringer, then Caltech or Calando may institute an action or suit against such Third Party, in accordance with their rights of priority under Sections 6.1 and 6.2 of the Caltech Agreement, subject to the following if Calando institutes such action or suit:

(A) Prior to taking any action, Calando shall confer with Cerulean and give due consideration to Cerulean’s reasons for not pursuing such alleged infringer.

(B) The action or suit shall be brought in the name of Caltech and/or Calando and Calando shall bear the entire cost of such action or suit. Calando shall promptly provide Cerulean with copies of all litigation pleadings and other documents submitted to the court.

(C) With respect to any consideration received by Calando in connection with such action or suit, Calando shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Cerulean). All remaining recovery shall be split equally between Calando and Cerulean.

(D) If it shall be necessary for Calando to join Cerulean as a party to an action or suit because Cerulean constitutes a legally indispensable party, Calando shall have the right to so join Cerulean; provided, that Calando indemnifies Cerulean for all outside costs and expenses (including reasonable attorneys fees) thereby incurred by Cerulean.

(iii) Calando shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Licensed Patent Rights other than the RNAi Patent Rights, or using without proper authorization all or any portion of the Licensed Know-How, by researching, developing, making, having made, using, marketing, offering to sell, distributing, selling or importing any product that falls within the scope of the definition of "Retained Product" (but not a product that falls within the definition of "Licensed Product").

(iv) The Party enforcing such Licensed Patent Rights or Licensed Know-How pursuant to Section 7.3(d)(i), (ii) or (iii) shall have the sole and exclusive right to select counsel for any such suit referred and shall, except as provided herein, pay all expenses of the suit, including attorneys' fees and court costs. Neither Party shall settle any suit described in this Section 7.3 involving rights of the other Party without obtaining the prior written consent of such other Party, which consent shall not be unreasonably withheld.

7.4 Power of Attorney. Calando hereby constitutes and appoints the President of Cerulean with full power of substitution, the true and lawful attorney-in-fact and agent of Calando, to execute, acknowledge, verify, swear to, deliver, record and file, in Calando's or its assignee's name, place and stead, all in accordance with the terms of this Agreement, all instruments, documents and certificates which may from time to time be required by the laws of the governmental authority to prosecute, maintain and enforce the Licensed Patent Rights other than the RNAi Patent Rights, and to prepare and file any patent applications covering Licensed Know-How, in each case to the extent Calando or its assignee has such right pursuant to this Section 7. The power of attorney granted herein will be deemed to be coupled with an interest, will survive and not be affected by the dissolution, bankruptcy or legal disability of Calando and will extend to its successors and assigns. If required, Calando shall execute and deliver to Cerulean within [\*\*] days after the receipt of a request therefor, such further designations, powers of attorney or other instruments as Cerulean will reasonably deem necessary for the purposes described in this Section 7.4.

7.5 Claimed Infringement. If a Third Party at any time provides written notice of a claim, or brings an action, suit or proceeding, against either Party or any of its Affiliates or sublicensees, claiming infringement of such Third Party's Patent Rights or unauthorized use or misappropriation of such Third Party's Know-How, arising out of the research or development of the Cyclodextrin System or the research, development, making, having made, use, marketing, offering to sell, distribution, sale or importation of Licensed Products, such Party shall promptly notify the other Party of the claim or the commencement of such action, suit or proceeding, enclosing a copy of the claim and all papers served and such Party shall have the sole right and responsibility to take any action it deems appropriate with respect such claim, action, suit or proceeding.

## SECTION 8. CONFIDENTIAL INFORMATION

8.1 Treatment of Confidential Information. Each Receiving Party shall maintain in confidence the Confidential Information of the Disclosing Party and shall not disclose, divulge or otherwise communicate such Confidential Information to others, or use it for any purpose, except to exercise its rights or fulfill its obligations under this Agreement. Each Receiving Party shall

exercise every reasonable precaution to prevent and restrain the unauthorized disclosure of such Confidential Information by any of its directors, officers, employees, consultants, subcontractors, sublicensees or agents.

8.2 Release from Restrictions. The provisions of Section 8.1 shall not apply to any Confidential Information of the Disclosing Party which:

(a) was known or used by the Receiving Party or any of its Affiliates prior to its date of disclosure to the Receiving Party, as demonstrated by competent evidence of the Receiving Party;

(b) either before or after the date of the disclosure to the Receiving Party is lawfully disclosed to the Receiving Party or any of its Affiliates by a Third Party rightfully in possession of, and with the right to disclose, such Confidential Information;

(c) either before or after the date of the disclosure to the Receiving Party becomes published or generally known to the public through no fault or omission on the part of the Receiving Party or its Affiliates;

(d) is required to be disclosed by the Receiving Party to comply with applicable laws or regulations, to defend or prosecute litigation or arbitration, to file for patent protection as permitted hereunder or to file for Regulatory Approval as permitted hereunder; provided, however, that (i) with respect to a disclosure to comply with laws or regulations or to defend or prosecute litigation or arbitration, then, to the extent permitted by law, the Receiving Party shall provide the Disclosing Party with prompt notice of any such requirement, and (ii) with respect to any disclosure under this clause (d), then, where available, the Receiving Party shall take reasonable and lawful actions to avoid and/or minimize the degree of such disclosure; or

(e) is independently developed by the Receiving Party or any of its Affiliates without reference to the Confidential Information of the Disclosing Party;

provided, however, that Calando may not rely on the provisions of Section 8.2(a) or (b) with respect to the Assigned IP.

8.3 Permitted Disclosure. The Receiving Party may provide the Disclosing Party's Confidential Information to the directors, employees, consultants and advisors of the Receiving Party and its Affiliates, and to its then-current and potential licensees who have a need to know such Confidential Information for purposes of the Receiving Party granting licenses or sublicenses under Collective Patent Rights or Licensed Know-How as permitted herein; provided, that such persons shall (a) execute or have executed an agreement in reasonable form whereby they agree to be bound by an obligation, or (b) be bound by ethical or fiduciary obligations, in each case to maintain the confidentiality of the Disclosing Party's Confidential Information at least to the same extent as if they were parties hereto.

8.4 Publicity. No Party shall have the right to make any public announcements with respect to this Agreement, nor publicly disclose the terms of this Agreement, without the prior written consent of the other Party, except as follows:

(a) On the first business day following the execution of this Agreement, each Party shall issue its press release attached hereto as Exhibit I.

(b) Each Party may disclose the terms of this Agreement to the extent such disclosure is required by law (including by rules or regulations of any securities exchange or NASDAQ) or to defend or prosecute litigation or arbitration; provided, that, prior to such disclosure, to the extent permitted by law or such rules or regulations, the disclosing Party promptly notifies the other Party of such requirement and gives such other Party an opportunity to comment on the disclosure to be made, the disclosing Party furnishes only those terms of this Agreement that the disclosing Party is legally required to furnish and the disclosing Party requests, and use reasonable efforts to obtain, confidential treatment of financial and other commercially sensitive terms.

(c) Each Party may make subsequent disclosures of information which has been previously publicly disclosed in accordance with this Agreement.

(d) Calando may disclose this Agreement to (i) Calando's then-current and potential Third Party licensors or licensees of the Collective Patent Rights, and (ii) Calando's then-current and potential investors and acquirers; provided, that such persons are bound to maintain the confidentiality of this Agreement to the same extent as if they were parties hereto and Calando shall not disclose the financial and other commercially sensitive terms of this Agreement to any licensee outside the Field.

(e) Cerulean may disclose this Agreement to (i) Cerulean's then-current and potential licensors or licensees of the Collective Patent Rights, and (ii) Cerulean's then-current and potential investors and acquirers; provided, that such persons are bound to maintain the confidentiality of this Agreement to the same extent as if they were parties hereto.

(f) From and after the Effective Date, Cerulean shall have the right to make and control all disclosures regarding Licensed Products.

8.5 Enforcement. The provisions of Section 8 of this Agreement are necessary for the protection of the business and goodwill of the Parties and are considered by the Parties to be reasonable for such purpose. The Receiving Party agrees that any breach of Section 8 of this Agreement may cause the Disclosing Party substantial and irreparable injury and, therefore, in the event of any such breach, in addition to other remedies which may be available, the Disclosing Party may have the right to specific performance and other injunctive and equitable relief.

8.6 Caltech Name. Except as may be required by law, Cerulean shall not, without having first obtained written approval from Caltech, use the name of Caltech, or California Institute of Technology, in any advertising or publicity material, or make any form of representation or statement which would constitute an express or implied endorsement by Caltech of any Licensed Product.



8.7 Laboratory Notebooks. The laboratory notebooks of Calando shall be made available to Cerulean upon the following terms and conditions:

(a) All original laboratory notebooks and one complete unredacted electronic copy of the original laboratory notebooks shall be archived with Escrow Associates, LLC (the "Escrow Agent") pursuant to the terms and conditions of the Three-Party Escrow Agreement (also known as the Technology Escrow Agreement) attached hereto as Exhibit J (the "Escrow Agreement"). The master inventory list included as Exhibit D to the Escrow Agreement references each such laboratory notebook, including its assigned number and the inventor to whom the laboratory notebook was assigned, and whether such laboratory notebook is a Full Access Notebook, Partial Access Notebook or Restricted Access Notebook. Such deposit with the Escrow Agent shall be made by Calando on or prior to the Effective Date and shall be released to Cerulean in accordance with the terms of the Escrow Agreement.

(b) In addition, Cerulean shall be given, and granted full access to, one complete unredacted electronic copy of the [\*\*] laboratory notebooks of Calando that: (i) do not primarily relate to nucleic acids; (ii) contain disclosure related to the Assigned IP or Licensed IP; and (iii) do not contain proprietary information of Third Parties (such notebooks, the "Full Access Notebooks").

(c) Cerulean shall be given, and granted full access to, one redacted electronic copy of the [\*\*] laboratory notebooks of Calando that: (i) do not primarily relate to nucleic acids; (ii) contain disclosure related to the Assigned IP or Licensed IP; and (iii) contain proprietary information of Third Parties that is not disclosure related to the Assigned IP or Licensed IP (such notebooks, the "Partial Access Notebooks"). Calando shall delete from such copy of such laboratory notebooks the proprietary information of Third Parties that is not disclosure related to the Assigned IP or Licensed IP.

(d) Cerulean shall not be given or granted full access to any of the [\*\*] laboratory notebooks that are primarily related to nucleic acids and which may or may not contain proprietary information of Third Parties (such notebooks, the "Restricted Access Notebooks").

(e) Notwithstanding the foregoing clauses (c) and (d), one complete unredacted electronic copy of the originals of each of the Full Access Notebooks, Partial Access Notebooks and Restricted Access Notebooks shall be delivered to Cerulean on the Effective Date. Such copies of the Partial Access Notebooks and Restricted Access Notebooks shall be maintained in a secure location and access to such copies shall be limited at all times to the most senior scientific officer of Cerulean, the most senior internal legal counsel of Cerulean and outside counsel of Cerulean. Cerulean, acting through such representatives, shall have the right to refer to and use such copies of the Partial Access Notebooks and Restricted Access Notebooks solely: (i) for regulatory or governmental purposes pertaining to the Cyclodextrin System or any Licensed Product; (ii) in connection with any litigation pertaining to the Cyclodextrin System or any Licensed Product; (iii) for the maintenance, prosecution or defense of the Assigned IP or Licensed IP; (iv) to resolve scientific or technical questions regarding the redacted laboratory notebooks; and (v) to make corrections in the event that any disclosures related to the Assigned IP or Licensed IP were improperly or incorrectly redacted.

(f) Cerulean's use of the Full Access Notebooks, whether the originals released by the Escrow Agent or the copies provided hereunder, shall be unrestricted.

(g) In no event shall Cerulean have any right, nor is any right granted by Calando to Cerulean, to exploit any proprietary information of Third Parties that is not Assigned IP or Licensed IP and is contained in any of the laboratory notebooks of Calando.

(h) Title to and ownership of the Full Access Notebooks, the Partial Access Notebooks and the Restricted Access Notebooks shall remain with Calando.

## SECTION 9. WARRANTIES

9.1 Mutual Warranties. Each Party warrants that:

(a) it is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation, and it has full power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted and as it is contemplated to be conducted by this Agreement;

(b) it has the full right, power and authority to enter into this Agreement and to grant the rights and licenses granted by it under this Agreement;

(c) as of the Effective Date, there is no existing or, to its Knowledge, threatened action, suit, claim, litigation, investigation, proceeding or controversy pending before any court, administrative agency or other governmental authority with respect to (i) the subject matter of this Agreement, or (ii) its right to enter into and perform its obligations under this Agreement;

(d) as of the Effective Date, it has taken all necessary corporate and stockholder action on its part to authorize the execution and delivery of this Agreement and the performance of its obligations under this Agreement;

(e) this Agreement has been duly executed and delivered on behalf of it, and constitutes a legal, valid, binding obligation, enforceable against it in accordance with the terms hereof, subject to the general principles of equity and to bankruptcy, insolvency, moratorium and other similar laws affecting the enforcement of creditors' rights generally;

(f) as of the Effective Date, all necessary consents, approvals and authorizations of all governmental authorities and other persons required to be obtained by it in connection with the execution and delivery of this Agreement and the performance of its obligations under this Agreement have been obtained;

(g) the execution and delivery of this Agreement and the performance of its obligations hereunder do not (i) conflict with, or constitute a default under, any of its contractual obligations, (ii) conflict with or violate any provision of its Certificate of Incorporation, by-laws or other organizational documents; or (iii) violate any judgment, order, writ, injunction, decree, statute, rule or regulation of any court, administrative agency or other governmental authority applicable to it or any of its properties or assets; and

(h) it has no liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement.

9.2 Additional Calando Warranties. Except as set forth in the Disclosure Letter attached hereto and made a part hereof, Calando warrants to Cerulean that, as of the Effective Date:

(a) Good Title. Immediately prior to the Effective Date and the assignments pursuant to Section 2, (i) Calando was the sole, true and lawful owner of, and had good title to, the Assigned IP and the Inventory, free and clear of all Liens of any kind; (ii) Calando is not, and has not been, bound by any policies or agreements under which the Assigned IP or Inventory has been or will be assigned to anyone other than Cerulean; (iii) Calando has the right to sell and transfer to Cerulean good, clear record and title to the Assigned IP and Inventory, free and clear of all Liens of any kind; and (iv) upon execution and delivery to Cerulean of this Agreement and the instruments of conveyance referred to in Section 2.3(e), Cerulean will become the sole, true and lawful owner of, and receive good title to, the Assigned IP and Inventory, free and clear of all Liens.

(b) Inventory. All Inventory was manufactured in accordance with cGMP and the specifications set therefor by Calando and conform to such specifications.

(c) Assignment of Assigned IP. Prior to the Effective Date and the assignment pursuant to Section 2.2, Calando had recorded with the appropriate governmental authorities all assignments and any other documentation necessary to convey to Calando all rights, title and interest in and to any of the Assigned IP to which Calando has acquired rights from its employees, Affiliates or Third Parties. Other than pursuant to the Cytolysin/Tubulysin Agreement, there is no agreement currently in effect pursuant to which Calando has granted any license, right or authority under any Assigned IP to any person, nor has Calando extended any covenant not to sue under the Assigned IP to any person.

(d) Government Rights. Calando, its Affiliates and Caltech have neither sought, applied for nor received any support, funding, resources or assistance from any governmental authority in connection with the development, conception or reduction to practice of the Assigned IP or Licensed IP or the research, development, manufacturing, having made, use, marketing, offering to sell, distribution, sale or importation of any Licensed Product or any facilities or equipment used in connection therewith.

(e) Completeness. Exhibits A, B, C and D collectively list all Patent Rights owned, solely or jointly, by Calando or its Affiliates and/or Controlled by Calando that relate to the Cyclodextrin System or the Licensed Products, in each case immediately prior to the assignment of the Assigned Patent Rights pursuant to Section 2.2. Such exhibits accurately list, for each such Patent Right: the applicable serial number, filing date, title, jurisdiction in which filing was made, issue date and owners(s).

(f) Patent Validity. To Calando's Knowledge, (i) all issued patents included in the Collective Patent Rights are valid and enforceable; (ii) no claim has been made against Calando, its Affiliates or the Third Party co-owner thereof alleging that any issued patent included in the Collective Patent Rights is invalid or unenforceable; (iii) all assignments of such Patent Rights have been properly executed and recorded; (iv) all issuance, renewal, maintenance and other payments that are or have become due with respect thereto have been timely paid by or

on behalf of Calando or the Third Party co-owner thereof; (v) there are no inventorship challenges, opposition or nullity proceedings or interferences declared, commenced or provoked with respect to any Collective Patent Rights; and (vi) with respect to the Assigned Patent Rights and with respect to any Licensed Patent Rights owned, in whole or in part, by Calando, Calando and its Affiliates have, and any co-owner of such Patent Rights has, complied with the duty of candor and disclosure to the United States Patent and Trademark Office and any relevant foreign patent office and have made no material misrepresentation in any patent applications included in or underlying such Patent Rights. Calando has no Knowledge of any information that would preclude it from owning the Assigned IP (immediately prior to the assignment pursuant to Section 2.2) or the Licensed Patent Rights described in clause (vi) hereof.

(g) Non-Infringement of Third Party Rights. There are no claims pending or, to the actual knowledge of the Calando Representatives, threatened by any person against Calando or any of its Affiliates alleging that Calando's ownership, sale, licensing, possession or use of, or disclosure, transfer, license or assignment (as applicable) to Cerulean of, the Inventory, Assigned IP or Licensed IP infringes upon or constitutes an unauthorized use of the intellectual property rights of any person, nor is there any known basis for any such claim. To the actual knowledge of the Calando Representatives, none of the Licensed Products that have been developed by or for Calando on or before the Effective Date infringe or misappropriate any intellectual property right of any Third Party. Except as previously disclosed to Cerulean's General Counsel, to the actual knowledge of the Calando Representatives, the research, development, making, having made, use, offering for sale, distribution, sale or importation of the poly-beta-cyclodextrin-PEG described in Exhibit K, in and of itself, by or on behalf of Cerulean, its Affiliates or sublicensees after the Effective Date, will not infringe or misappropriate any intellectual property right of any Third Party. Calando and its Affiliates have not received any complaint, claim or notice, nor any threat thereof (including any notification that a license under any Patent Right or other intellectual property right is or may be required), alleging any such infringement or misappropriation.

(h) Non-Infringement by Third Party. To Calando's Knowledge, no person (including any current or former employee or consultant of Calando) is infringing, violating or misappropriating (i) any of the Assigned IP or (ii) any of the Licensed IP in the Field.

(i) Corporate Documents. Calando has furnished to Cerulean true, complete and accurate copies of (i) its current Certificate of Incorporation and by-laws; (ii) all material documentation pertaining to the formation of the previous corporate entity known as Calando Pharmaceuticals, Inc., the subsequent merger of such corporate entity into Insert Therapeutics, Inc. and the subsequent change in the name of Insert Therapeutics, Inc. to Calando Pharmaceuticals, Inc.; (iii) its stock ledger going back to the inception of Calando or its predecessor and a list of all current stockholders of Calando; (iv) all documentation for any repurchased or cancelled shares of stock of Calando; (v) all option plans, option agreements, warrants and other rights to purchase equity of Calando (including any exercises) and the ledger(s) listing current holders thereof; (vi) all promissory notes of Calando and a ledger listing all current holders thereof; (vii) all agreements relating to the sale of equity of Calando; (viii) all board of director and stockholder minute books dating to the inception of Calando or its predecessor; and (ix) any other Relevant Agreement, including (A) any agreement under which a Lien has been or could be imposed on any of the Assigned IP, Licensed IP or Inventory and (B) any agreement that restricts or could reasonably be expected to have the effect of restricting the rights granted to Cerulean hereunder.

(j) Approvals. This Agreement and the transactions contemplated hereby have been approved by Calando's board of directors and stockholders in accordance with the corporate laws of the state of Delaware, including Section 144 of the Delaware General Corporation Law.

(k) Solvency. Neither Calando nor any of its Affiliates has ever filed in any court or agency pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of it or its assets. Neither Calando nor any of its Affiliates has been served with an involuntary petition against it, filed in any insolvency proceeding. Neither the execution and delivery of this Agreement nor the consummation of the transactions contemplated hereby will result in the imposition of any Lien upon any assets of Calando.

9.3 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS SECTION 9, NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS.

#### SECTION 10. INDEMNIFICATION

10.1 Indemnification by Cerulean. Cerulean agrees to defend the Calando Indemnitees, at Cerulean's cost and expense, and will indemnify and hold harmless the Calando Indemnitees from and against any and all losses, costs, damages, fees or expenses ("Losses") relating to or in connection with a Third Party claim arising out of (a) any actual or alleged death, personal bodily injury or damage to real or tangible personal property claimed to result, directly or indirectly, from the possession, use or consumption of, or treatment with, any Licensed Product, developed, manufactured, used or sold by or on behalf of Cerulean, its Affiliates or sublicensees after the Effective Date; (b) any breach by Cerulean of its representations, warranties or covenants made under this Agreement; or (c) any negligent act or omission or willful misconduct of Cerulean, its Affiliates or sublicensees or any of their employees, contractors or agents, in performing Cerulean's obligations or exercising Cerulean's rights under this Agreement; provided, however, that the foregoing indemnity shall not apply to the extent that any such Losses (i) are attributable to the gross negligence or willful misconduct of the Calando Indemnitees, or (ii) are otherwise subject to an obligation by Calando to indemnify the Cerulean Indemnitees under Section 10.2. In the event of any such claim against any Calando Indemnitee, Calando shall promptly notify Cerulean in writing of the claim and Cerulean shall manage and control, at its sole expense, the defense of the claim and its settlement as provided below. The relevant Calando Indemnitees shall cooperate with Cerulean and may, at such Calando Indemnitees' option and expense, be represented in any such action or proceeding. Cerulean shall not be liable for any settlements, litigation costs or expenses incurred by any Calando Indemnitees without Cerulean's written authorization. No Calando Indemnitee shall settle any such claim without the prior written consent of Cerulean. Cerulean shall not, without the prior written consent of Calando, agree to any settlement of any such claim that does not include a complete release of Calando from all liability with respect thereto or that imposes any liability, obligation or restriction on Calando.

10.2 Indemnification by Calando. Calando agrees to defend the Cerulean Indemnitees, at Calando's cost and expense, and will, jointly and severally with Arrowhead, indemnify and hold harmless the Cerulean Indemnitees from and against any and all Losses relating to or in connection with a Third Party claim arising out of (a) any research, development, manufacture, use, sale, offer for sale or importation of (i) any Licensed Product by or on behalf of Calando, its Affiliates or licensees which activity occurred on or before the Effective Date, or (ii) any Retained Product by or on behalf of Calando, its Affiliates and licensees before, on or after the Effective Date; (b) any breach by Calando of its representations, warranties or covenants made under this Agreement or any breach by Arrowhead of its representations, warranties or covenants made under the Arrowhead Guarantee; or (c) any negligent act or omission or willful misconduct of Calando or its Affiliates, or any of their employees, contractors or agents, in performing Calando's obligations or exercising Calando's rights under this Agreement; provided, however, that the foregoing indemnity shall not apply to the extent that any such Losses (i) are attributable to the gross negligence or willful misconduct of the Cerulean Indemnitees, or (ii) are otherwise subject to an obligation by Cerulean to indemnify the Calando Indemnitees under Section 10.1. In the event of any such claim against any Cerulean Indemnitee, Cerulean shall promptly notify Calando in writing of the claim and Calando shall manage and control, at its sole expense, the defense of the claim and its settlement as provided below. The relevant Cerulean Indemnitees shall cooperate with Calando and may, at such Cerulean Indemnitees' option and expense, be represented in any such action or proceeding. Calando shall not be liable for any settlements, litigation costs or expenses incurred by any Cerulean Indemnitees without Calando's written authorization. No Cerulean Indemnitee shall settle any such claim without the prior written consent of Calando. Calando shall not, without the prior written consent of Cerulean, agree to any settlement of any such claim that does not include a complete release of Cerulean from all liability with respect thereto or that imposes any liability, obligation or restriction on Cerulean.

10.3 Allocation. If a claim is based partially on an indemnified claim and partially on a non-indemnified claim or based partially on a claim indemnified by one Party and partially on a claim indemnified by the other Party, any payments in connection with such claims are to be apportioned between the Parties in accordance with the degree of cause attributable to each Party.

#### SECTION 11. LIMITATION OF LIABILITY

11.1 UNLESS RESULTING FROM A PARTY'S WILLFUL MISCONDUCT OR FROM A PARTY'S BREACH OF SECTION 8, NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY OR ITS AFFILIATES FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE, MULTIPLE OR OTHER INDIRECT DAMAGES, OR FOR LOSS OF PROFITS, LOSS OF DATA, LOSS OF REVENUE, OR LOSS OF USE DAMAGES, ARISING FROM OR RELATING TO THIS AGREEMENT, WHETHER BASED UPON WARRANTY, CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. FOR PURPOSES OF CLARITY, A PARTY'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 10 OF THIS AGREEMENT SHALL NOT BE DEEMED TO BE INDIRECT DAMAGES PRECLUDED BY THE FOREGOING.

## SECTION 12. TERM AND REMEDIES

12.1 Term. This Agreement shall commence on the Effective Date and shall continue until the expiration of all royalty obligations under Section 5.5 (the "Term"); provided, however, that Cerulean shall have the right to terminate this Agreement at any time and for any reason upon thirty (30) days prior written notice to Calando; provided, further, that upon such termination by Cerulean, Cerulean shall grant to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field. Further, if Cerulean determines, in its sole discretion, that such a license would be consistent with Cerulean's business purpose and plans, Cerulean agrees to discuss in good faith with Calando the possibility of granting to Calando a license to such Know-How, and the intellectual property rights encompassed therein, which is developed, conceived or reduced to practice by Cerulean after the Effective Date and which pertains to the Cyclodextrin System or Licensed Products, in order for Calando to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field.

12.2 Remedy for Breach. If a Party (the "Breaching Party") is in breach of a material provision of this Agreement (including any breach of a material representation or warranty made in this Agreement), then the other Party (the "Non-Breaching Party") may deliver notice of such breach to the Breaching Party.

(a) If the Breaching Party fails to cure such breach within [\*\*] days after the Breaching Party's receipt of such notice, then the Non-Breaching Party may seek money damages from the Breaching Party with respect to such breach, which shall be the Non-Breaching Party's sole remedy, except as provided in Sections 5.7, 12.2(b) or 12.2(c).

(b) If Cerulean has breached a payment obligation under Section 5 and Cerulean fails to cure such payment breach within [\*\*] days after Cerulean's receipt of such notice, then Calando may, upon written notice to Cerulean, terminate this Agreement; provided, however, that if Cerulean disputes such breach, Calando may not terminate this Agreement unless and until such dispute is finally resolved in Calando's favor and Cerulean fails to cure such payment breach within [\*\*] days after such final resolution. In the case of a termination, Cerulean shall grant to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field.

(c) If Cerulean has breached its obligations under Section 6.1 and Cerulean fails to cure such breach within [\*\*] days after Cerulean's receipt of such notice, then Calando may, upon written notice to Cerulean, convert the license granted in Section 3.1 to a non-exclusive license; provided, however, that if Cerulean disputes such breach, Calando may not

convert such license unless and until such dispute is finally resolved in Calando's favor and Cerulean fails to cure such breach within [\*\*] days after such final resolution. In the case of a conversion to non-exclusivity, the royalties payable under this Agreement, as determined in accordance with Section 5.5, shall be reduced by [\*\*] percent ([\*\*]%) and Cerulean shall grant to Calando a non-exclusive, transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field.

12.3 Challenges to Licensed Patent Rights. If Cerulean or an Affiliate of Cerulean challenges the validity or enforceability of any of the Licensed Patent Rights before any court, arbitrator or other tribunal or administrative agency in any jurisdiction, Calando shall have the right to terminate this Agreement on thirty (30) days prior written notice to Cerulean.

#### 12.4 Consequences of Termination.

(a) Upon any termination of this Agreement, the license to Cerulean of the Licensed IP shall terminate subject to the following. Cerulean shall, within [\*\*] days of the effective date of such termination, notify Calando in writing of the amount of Licensed Products which Cerulean and its Affiliates and Sublicensees then have completed in inventory, the sale of which would, but for the termination, be subject to royalty payments or payment of a portion of Sublicense Income, and Cerulean and its Affiliates and Sublicensees shall thereupon be permitted during the [\*\*] months following such termination to sell that amount of Licensed Products; provided, however, that Cerulean shall pay the aggregate royalty or portion of Sublicense Income due thereon at the conclusion of the earlier of [\*\*] days after the last such sale or [\*\*] days after the end of such [\*\*] month period. Except as provided herein, all sublicenses granted by Cerulean shall terminate upon the termination of this Agreement.

(b) Upon any termination of this Agreement, neither Party shall be relieved of any obligations incurred prior to such termination.

(c) Upon any termination of this Agreement, each Party shall promptly return to the other Party all tangible Confidential Information of the other Party.

(d) The following provisions shall survive the expiration or termination of this Agreement: Sections 2, 3.2, 3.3 (with respect to sublicenses granted pursuant to Section 3.2), 3.4 (if applicable), 3.5 (regarding the Retained Products), 5.9, 7.1, 7.2(a), 7.3(b), 8, 9.3, 10, 11, 12.1 (with respect to the license granted thereunder, if applicable), 12.2(b) (with respect to the license granted thereunder, if applicable), 12.4 and 13. Any licenses granted under Section 5.5(b)(iii) on or before the effective date of expiration or termination of this Agreement shall survive the expiration or termination of this Agreement.

### SECTION 13. MISCELLANEOUS

13.1 Assignment. Neither this Agreement nor any of the rights or obligations hereunder may be assigned by either Party without the prior written consent of the other Party, except (a) each Party may assign this Agreement, in whole or in part, to an Affiliate of the assigning Party; provided, that the assigning Party guarantees the performance of such Affiliate



of its obligations hereunder; (b) each Party may assign this Agreement, in whole, to a person who acquires all or substantially all of the business of the assigning Party by merger, sale of assets or otherwise (a “Sale Event”); and (c) each Party may exercise its rights or fulfill its obligations through its Affiliates, consultants, subcontractors and sublicensees; provided, that, such persons are bound by the corresponding obligations of such Party and such Party shall remain liable hereunder for the performance of its obligations hereunder. Any assignment not in accordance with the foregoing shall be void. Notwithstanding anything to the contrary herein, Calando shall not (i) assign this Agreement, in whole or in part, to any person unless Calando simultaneously assigns to such person all right, title and interest in, to and under the Licensed IP, the Caltech Agreement and the Caltech Side Letter, and (ii) assign any right, title or interest in or to the Licensed IP, except subject to the rights of Cerulean under this Agreement. This Agreement shall be binding upon, and shall inure to the benefit of, all permitted successors and assigns.

13.2 Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding its conflicts of laws provisions.

13.3 Dispute Resolution. Any dispute, controversy or claim arising out of or relating to this Agreement, or the breach, termination or invalidity thereof, shall be resolved as follows:

(a) The chief executive officers of the Parties shall attempt to resolve such dispute through good faith negotiation. Any such resolution of a referred dispute by the chief executive officers shall be final and binding on the Parties.

(b) If the Parties’ chief executive officers cannot resolve such dispute within [\*\*] days after either Party provides written notice of such dispute, then either Party may make a written demand for formal dispute resolution.

(c) Within [\*\*] days after such written demand, the Parties shall conduct a non-binding mediation administered by the American Arbitration Association in accordance with its commercial mediation rules. Unless otherwise mutually agreed upon by the Parties, the mediation proceedings shall be conducted at the location chosen by the Party not originally requesting the resolution of the dispute. The Parties shall share equally the cost of the mediation, including filing and hearing fees and the cost of the mediator(s). Each Party shall have the right, at its own expense, to be represented by counsel in such a proceeding.

(d) If such dispute is not resolved following mediation pursuant to Section 13.3(c), either Party may seek any remedy, at law or in equity, that may be available to it.

(e) Notwithstanding the foregoing provisions of this Section 13.3, each Party shall have the right at any time to institute judicial proceedings against the other Party or anyone acting by, through or under such other Party, in order to enforce the instituting Party’s rights hereunder through reformation of contract, specific performance, injunction or similar equitable relief.

13.4 Amendment and Waiver. This Agreement may not be amended, nor any rights hereunder waived, except in a writing signed by the properly authorized representatives of each Party. The waiver by either Party of a breach or a default of any provision of this Agreement by

the other Party shall not be construed as a waiver of any succeeding breach of the same or any other provision, nor shall any delay or omission on the part of either Party to exercise or avail itself of any right, power or privilege that it has or may have hereunder operate as a waiver of any right, power or privilege by such Party.

13.5 Notices. Any notice required or provided for by the terms of this Agreement shall be in writing, in the English language, and shall be (a) sent by certified mail, return receipt requested, postage prepaid, (b) sent via a reputable overnight air courier service, or (c) delivered by hand. Notices shall be effective when delivered to the addressee at the address listed in the first paragraph of this Agreement or such other address as the addressee shall have specified in the manner provided in this Section 13.5. The effective date of the notice shall be the actual date of receipt by the receiving Party.

13.6 No Agency. Nothing herein shall be deemed to constitute either Party as the agent or representative of the other Party or both Parties as joint venturers or partners for any purpose. Neither Party shall be responsible for the acts or omissions of the other Party, and neither Party will have authority to speak for, represent or obligate the other Party in any way without prior written authority from the other Party. Except for the Calando Indemnitees and the Cerulean Indemnitees, no person shall be a third party beneficiary of this Agreement.

13.7 Entire Agreement. This Agreement contains the full understanding of the Parties with respect to the subject matter hereof and supersedes all prior understandings and writings relating thereto, including the Prior Confidentiality Agreement; provided, however, that the Parties agree and acknowledge that the IT-101 Agreement, the Escrow Agreement and the Caltech Side Letter are being entered into concurrently herewith or have been entered into prior to the Effective Date and shall remain in effect.

13.8 Force Majeure. Neither Party will be held liable or responsible to the other Party nor be deemed to have breached this Agreement for failure or delay in fulfilling or performing any provision of this Agreement when such failure or delay results from causes beyond the reasonable control of the affected Party, which may include embargoes, acts of war (whether declared or not), insurrections, riots, civil commotions, acts of terrorism, strikes, lockouts or other labor disturbances, or acts of God. The affected Party will notify the other Party of such force majeure circumstances as soon as reasonably practical and will make every reasonable effort to mitigate the effects of such force majeure circumstances.

13.9 Severability. If any provision of this Agreement is held by a court of competent jurisdiction to be unenforceable because it is invalid or in conflict with any law of any relevant jurisdiction, the validity of the remaining provisions shall not be affected, and the rights and obligations of the Parties shall be construed and enforced as if the Agreement did not contain the particular provisions held to be unenforceable.

13.10 Export Compliance. The Parties acknowledge that the exportation from the United States of materials, products and related technical data (and the re-export from elsewhere of United States origin items) may be subject to compliance with United States export laws. Each Party shall comply with all applicable laws (whether U.S. or foreign) relating to the export, re-export, or release of any materials, products or their related technical data.

13.11 Counterparts and Facsimile Signatures. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. This Agreement may be executed by facsimile signature.

13.12 Construction. In construing this Agreement, unless expressly specified otherwise;

(a) references to Sections and Exhibits are to sections of, and exhibits to, this Agreement;

(b) use of either gender includes the other gender, and use of the singular includes the plural and vice versa;

(c) headings and titles are for convenience only and do not affect the interpretation of this Agreement;

(d) any list or examples following the word “include” or “including” shall be interpreted without limitation to the generality of the preceding words; and

(e) the language used in this Agreement shall be deemed to be the language chosen by the Parties to express their mutual intent, and no rule of strict construction shall be applied against either Party.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the Parties hereto have caused this Platform Agreement to be executed as a sealed instrument in their names by their properly and duly authorized officers or representatives as of the date first above written.

CERULEAN PHARMA INC.

By: /s/ Oliver Fetzer

Name: Oliver Fetzer

Title: Chief Executive Officer

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone

Name: Christopher Anzalone

Title: Chief Executive Officer

Arrowhead Research Corporation, hereby (a) guarantees Calando's performance under this Agreement, (b) makes the same representations and warranties to Cerulean as Calando makes to Cerulean under Section 9.1 and clauses (i)-(k) of Section 9.2, and (c) agrees to indemnify Cerulean to the same extent as Calando indemnifies Cerulean pursuant to Section 10.2 from any Losses relating to or in connection with a Third Party claim arising out of any breach by Arrowhead of its representations or warranties as described in clause (b), and for which indemnification Calando and Arrowhead shall be jointly and severally liable to Cerulean and the Cerulean Indemnitees.

Arrowhead Research Corporation

By: /s/ Christopher Anzalone

Name: Christopher Anzalone

Title: President and Chief Executive Officer

Signature Page to Platform Agreement

**Exhibit A**

**Assigned Patent Rights**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>	<b>OWNER</b>
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Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of six pages were omitted. [\*\*]

**Exhibit B**

**Caltech Joint Patent Rights**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>	<b>Owners</b>
[Redacted]									

Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of three pages were omitted. [\*\*]

**Exhibit C**

**Caltech Sole Patent Rights**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>	<b>Owner</b>

Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of four pages were omitted. [\*\*]

**Exhibit D**

**RNAi Patent Rights**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>	<b>OWNER</b>
[Redacted]									

Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of three pages were omitted. [\*\*]



**Exhibit E**

**Caltech Side Letter**

[Calando Letterhead]

June 11, 2009

Office of Technology Transfer  
California Institute of Technology  
1200 East California Boulevard (MC 210-85)  
Pasadena, California 91125

Cerulean Pharma Inc.  
161 First Street, Suite 2A  
Cambridge, Massachusetts 02412

Ladies/Gentlemen:

Reference is made to the License Agreement between California Institute of Technology ("Caltech") and Calando Pharmaceuticals, Inc. (formerly known as Insert Therapeutics, Inc.) ("Calando") dated May 22, 2000, as amended on December 10, 2001, January 13, 2003 and June 19, 2009 (the "License Agreement"). Capitalized terms used herein and not otherwise defined herein shall have the meanings given such terms in the License Agreement.

Reference is also made to Calando's anticipated transaction with Cerulean Pharma Inc. ("Cerulean") pursuant to which Calando will grant Cerulean, under one or more agreements (the "Transaction Agreements"), a combination of an assignment of, and a world-wide license, including the right to grant further sublicenses, to, Calando's interest in all patent rights and know-how pertaining to its cyclodextrin-based polymer drug delivery systems (the "Cyclodextrin System") in order for Cerulean to (a) conduct research and development on the Cyclodextrin System, including making improvements thereto, for the purpose of making, using and selling Products for the Therapeutic Field and (b) research, develop, make, have made, use, market, offer to sell, distribute, sell and import Products for the Therapeutic Field.

Calando's interest will include Calando's interest in the Caltech Technology. Products will be defined to include pharmaceutical compositions containing therapeutic agents conjugated or complexed to the Cyclodextrin System and will specifically include Calando's clinical asset IT-101. Products will exclude pharmaceutical compositions containing cytolysin, tubulysin, certain second generation epothilones and nucleic acids as the therapeutic agents. Therapeutic Field will mean the use of Products to treat and/or prevent disease in humans.

For purposes of clarity, a current list of the Licensed Patent Rights, which are solely owned by Caltech, is attached hereto as Exhibit A, a current list of the Improvements, which are jointly owned by Caltech and Calando, is attached hereto as Exhibit B, and a current list of the patent rights solely owned by Calando is attached hereto as Exhibit C (the "Calando Patents"). Calando's exclusive interest in the Licensed Patent Rights and Improvements and Calando's non-exclusive interest in the Technology will be (a) exclusively sublicensed to Cerulean in order

to research and develop the Cyclodextrin System, and make improvements thereto, for the purpose of making, using and selling Products for the Therapeutic Field and (b) exclusively sublicensed to Cerulean for purposes of researching, developing, making, having made, using, marketing, offering to sell, distributing, selling and importing Products for the Therapeutic Field. The Calando Patents will be assigned to Cerulean.

As a result of discussions among Calando, Caltech and Cerulean regarding the License Agreement, Calando, Caltech and Cerulean have agreed to certain modifications and/or clarifications pertaining to the License Agreement, as follows:

1. In the event of the bankruptcy or other insolvency of Calando, a termination, for any reason, of the License Agreement, or a conversion to non-exclusivity of the licenses granted to Calando in the License Agreement, Caltech agrees to directly honor the exclusive license, including the right to grant further sublicenses, granted by Calando to Cerulean to practice the Licensed Patents Rights and the Improvements and to use the Technology in connection with Products in the Therapeutic Field, with the following additional understandings of Calando, Caltech and Cerulean.

In the event of the bankruptcy or other insolvency of Calando, or the termination, for any reason, of the License Agreement, to the extent not paid by Calando, Cerulean shall be obligated to pay to Caltech (a) the annual minimum royalties due Caltech pursuant to Section 3.7 of the License Agreement, (b) the patent costs due Caltech pursuant to Sections 10.1 and 10.4 of the License Agreement and (c) the amounts that Calando would have been obligated to pay to Caltech under the terms of Section 3.13 of the License Agreement in respect of the net sales of Products by Cerulean; provided that if there are one or more other licensees of the Caltech Technology, the annual minimum royalties and patent costs due Caltech shall be shared equally among the licensees of the Caltech Technology. To the extent that Cerulean makes any such payments to Caltech, Cerulean shall be entitled to deduct the full amount of such payments from any milestones or royalties due Calando under the Transaction Agreements.

2. For purposes of clarity, during the term of the License Agreement and/or subsequent to a termination, for any reason, of the License Agreement, the provisions of Section 10.4 of the License Agreement shall apply with respect to the prosecution and maintenance of the Licensed Patent Rights and Improvements by Caltech with the following additional understandings of Calando, Caltech and Cerulean.

Unless and until there occurs an event of bankruptcy or other insolvency involving Calando or a termination, for any reason, of the License Agreement, Calando shall remain liable to Caltech for the patent costs incurred by Caltech in connection with the prosecution and maintenance of the Licensed Patent Rights and Improvements. In the event of the bankruptcy or other insolvency of Calando and/or a termination, for any reason, of the License Agreement, to the extent not paid by Calando, the terms of Paragraph 1 shall apply with respect to the patent costs incurred by Caltech in connection with the prosecution and maintenance of the Licensed Patent Rights and Improvements.

In the event of the bankruptcy or other insolvency of Calando and/or a termination, for any reason, of the License Agreement, Caltech agrees that Cerulean shall have the direct right to

review and comment upon and approve any and all patent filings and all actions undertaken in the prosecution and maintenance of the Licensed Patent Rights and Improvements. Further, in the event that Caltech determines not to prepare, file, prosecute or maintain any patent application or patent within the Licensed Patent Rights or Improvements, Caltech shall promptly notify Cerulean, and thereupon, Cerulean shall have the right, at its own expense, to prepare, file, prosecute and maintain any such patent application or patent within the Licensed Patent Rights or Improvements.

3. Whether or not the License Agreement is in effect, the following terms and conditions will apply with respect to the enforcement of the Licensed Patent Rights and Improvements in connection with Products in the Therapeutic Field:

(a) Cerulean, acting directly or through an affiliate or sublicensee, shall have, for a period of [\*\*] days from the notice of an infringement of the Licensed Patent Rights and/or Improvements, the first right to institute an action or suit against the infringing third party in accordance with the following:

- (i) The action or suit shall be brought in the name of Cerulean and Cerulean shall bear the entire cost of such action or suit. Cerulean shall promptly provide Caltech and/or Calando with copies of all litigation pleadings and other documents submitted to the court.
- (ii) With respect to any consideration received by Cerulean in connection with such action or suit, Cerulean shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Caltech and/or Calando). Thereafter, (x) to the extent that the remaining recovery represents lost profits, such remaining recovery shall be retained by Cerulean, with Calando entitled to receive an amount equal to the royalties that would have been due Calando on sales of Products lost by Cerulean as a result of the infringement and (y) to the extent that the remaining recovery represents punitive or other damages, Cerulean shall be entitled to [\*\*]% of such remaining recovery and Calando shall be entitled to [\*\*]% of such remaining recovery. In the event that the License Agreement is not in effect, Cerulean will be obligated to pay to Caltech the amounts that Calando would have been obligated to pay to Caltech under the terms of the License Agreement had the action been instituted by Calando.
- (iii) If it shall be necessary for Cerulean to join Caltech and/or Calando as a party to an action or suit because Caltech and/or Calando constitutes a legally indispensable party, Cerulean shall have the right to so join Caltech and/or Calando, provided that Cerulean indemnifies Caltech and/or Calando for all outside costs and expenses thereby incurred by Caltech and/or Calando.

(b) If within [\*\*] days after notification of an infringement of the Licensed Patent Rights or Improvements pursuant to clause (a) above, Cerulean has not been successful in persuading the alleged infringer to desist and is not diligently pursuing an infringement action or suit, or has notified Caltech and Calando of its intent not to bring action or suit against the alleged infringer, then Caltech and/or Calando may institute an action or suit against such third party, in accordance with their rights of priority under Sections 6.1 and 6.2 of the License Agreement, subject to the following:

- (i) Prior to taking any action, Caltech and Calando shall confer with Cerulean and give due consideration to Cerulean's reasons for not pursuing such alleged infringer.

- (ii) The action or suit shall be brought in the name of Caltech and/or Calando and Caltech and/or Calando shall bear the entire cost of such action or suit. Caltech and/or Calando shall promptly provide Cerulean with copies of all litigation pleadings and other documents submitted to the court.
- (iii) With respect to any consideration received by Caltech and/or Calando in connection with such action or suit, Caltech and/or Calando shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Cerulean). In the case where the Product has not been licensed by Cerulean to a third party, [\*\*]% of the remaining recovery shall go the party bringing the action and [\*\*]% of the remaining recovery shall go to Cerulean. In the case where the Product has been licensed by Cerulean to a third party, the remaining recovery shall be split equally between the party bringing the action or suit and Cerulean and/or the licensee of Cerulean.
- (iv) If it shall be necessary for Caltech and/or Calando to join Cerulean as a party to an action or suit because Cerulean constitutes a legally indispensable party, Caltech and/or Calando shall have the right to so join Cerulean, provided that Caltech and/or Calando indemnifies Cerulean for all outside costs and expenses thereby incurred by Cerulean.

(c) In the event that a declaratory judgment action alleging invalidity, unenforceability or non-infringement of the Licensed Patent Rights or Improvements is brought against Cerulean, Caltech and/or Calando, Cerulean, at its option, shall have the right, within [\*\*] days of the commencement of such action, to take over the sole defense of the action at its own expense and with the provisions of clause (a)(iii) above applying. If Cerulean does not exercise this right, Caltech and/or Calando may take over the defense of the action, in accordance with their rights of priority under Section 6.3 of the License Agreement, at Caltech's or Calando's sole expense.

(d) If any action or suit is brought involving the enforcement or defense of the Licensed Patent Rights or Improvements, the other parties agree, at the request and expense of the party initiating such action or suit, to reasonably cooperate and to make available relevant records, papers, information, samples, specimens and the like.

(e) No settlement or consent judgment or other voluntary final disposition of an enforcement or defense action or suit initiated by a party may be entered into without the consent of the other parties, which consent will not be unreasonably withheld, provided that Cerulean shall, in its sole discretion, have the right to determine whether to grant and/or on what basis to grant a sublicense of the Licensed Patent Rights or Improvements to an infringer of the Licensed Patent Rights or Improvements for future use of the Licensed Patent Rights or Improvements in connection with Products in the Therapeutic Field.

4. Each party shall have the right to directly enforce the terms and conditions of this letter agreement against either or both of the other parties, as appropriate. Further, the terms and conditions of this letter agreement shall be assignable by Cerulean, and shall apply, to a person who acquires all or substantially all of the business of Cerulean by merger, sale of assets or otherwise.

In order to evidence your acceptance of the foregoing, please countersign this letter where indicated below.

Very truly yours,  
/s/ Christopher Anzalone

Christopher Anzalone,  
President

California Institute of Technology

By: /s/ Fred Farina  
Fred Farina  
Assistant Vice President  
Office of Technology Transfer  
California Institute of Technology

Cerulean Pharma Inc.

By: \_\_\_\_\_  
Oliver Fetzer, Chief Executive Officer

**EXHIBIT A**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>
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Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of four pages were omitted. [\*\*]

**EXHIBIT B**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>
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Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of two pages were omitted. [\*\*]

**EXHIBIT C**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>
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Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of five pages were omitted. [\*\*]



**Exhibit F**

**BILL OF SALE**

This Bill of Sale dated June 23, 2009 is executed and delivered by Calando Pharmaceuticals, Inc., a Delaware corporation (the "Seller"), to Cerulean Pharma Inc., a Delaware corporation (the "Buyer"). All capitalized words and terms used in this Bill of Sale and not defined herein shall have the respective meanings ascribed to them in the Platform Agreement dated June 23, 2009 between the Seller and the Buyer (the "Agreement").

WHEREAS, pursuant to the Agreement, the Seller has agreed to sell, transfer, convey, assign and deliver to the Buyer certain of the assets of the Seller;

NOW, THEREFORE, in consideration of the mutual promises set forth in the Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Seller hereby agrees as follows:

The Seller hereby sells, transfers, conveys, assigns and delivers to the Buyer, its successors and assigns, to have and to hold forever, all right, title and interest in, to and under all of the Inventory and Assigned IP.

The Seller hereby covenants and agrees that it will, at the request of the Buyer and without further consideration, execute and deliver, and will cause its employees to execute and deliver, such other instruments of sale, transfer, conveyance and assignment, and take such other action, as may reasonably be necessary to more effectively sell, transfer, convey, assign and deliver to, and vest in, the Buyer, its successors and assigns, good, clear, record and title to the Inventory and Assigned IP hereby sold, transferred, conveyed, assigned and delivered, or intended so to be, and to put the Buyer in actual possession and operating control thereof, to assist the Buyer in exercising all rights with respect thereto and to carry out the purpose and intent of the Agreement.

The Seller does hereby irrevocably constitute and appoint the Buyer, its successors and assigns, its true and lawful attorney, with full power of substitution, in its name or otherwise, and on behalf of the Seller, or for its own use, to claim, demand, collect and receive at any time and from time to time any and all of the Inventory and Assigned IP, and to prosecute the same at law or in equity and, upon discharge thereof, to complete, execute and deliver any and all necessary instruments of satisfaction and release.

The Seller, by its execution of this Bill of Sale, and the Buyer, by its acceptance of this Bill of Sale, each hereby acknowledges and agrees that neither the representations and warranties nor the rights, remedies or obligations of any party under the Agreement shall be deemed to be enlarged, modified or altered in any way by this instrument.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the Seller and the Buyer have caused this Bill of Sale to be duly executed under seal as of and on the date first above written.

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone

Title: Chief Executive Officer

Attest:

/s/ illegible

ACCEPTED:

CERULEAN PHARMA INC.

By: /s/ Oliver Fetzer

Title: Chief Executive Officer

**Exhibit G**

**ASSIGNMENT OF PATENTS**

**CALANDO PHARMACEUTICALS, INC.**, a Delaware corporation, located at 129 North Hill Avenue, Pasadena, California 91106 USA (“Assignor”), hereby irrevocably sells, transfers, conveys and assigns to **CERULEAN PHARMA INC.**, a Delaware corporation, located at 161 First Street, Cambridge, Massachusetts 02142 USA (“Assignee”), the entire right, title and interest for the United States of America and its territorial possessions and all other countries and patent regions, including all rights of priority and rights to recover for past infringement, in the inventions disclosed in the patents and patent applications identified on Schedule A, together with the entire right, title, and interest in and to all patents and patent applications identified on Schedule A, all divisional, continuation, continuation-in-part, reissue, reexamination, extension or other applications based in whole or in part thereon or which claim priority or are related by terminal disclaimer thereto or therefrom, and all Letters Patent of the United States and all other countries and patent regions worldwide which may or shall be granted on said inventions, or any parts thereof (“Assignment”).

Assignor acknowledges having received consideration for this Assignment and agrees for said consideration to execute all deeds, separate written forms of assignment necessary to perfect the Assignment in specific countries and patent regions, or other instruments, and to do all acts reasonably necessary or proper to assist Assignee in securing the grant of Letters Patent in the United States and in all other countries and patent regions and to vest and confirm in Assignee, its successors and assigns, the legal title to all aforementioned inventions, patents and patent applications.

Assignor does hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and the equivalent authority in each other country and patent region in the world, to issue such Letters Patent as shall be granted upon said inventions or applications based thereon to Assignee, its successors and assigns.

*[Remainder of page left intentionally blank.]*

Witness my hand and seal this 23 day of June, 2009.

**CALANDO PHARMACEUTICALS, INC.**

/s/ Paul C. McDonnel

---

Name: Paul C. McDonnel

Title: CFO

**STATE OF CALIFORNIA**

County of Los Angeles

On this 23 day of June, 2009, before me, the undersigned notary public, personally appeared Paul C. McDonnel, proved to me through satisfactory evidence of identification, which was Drivers License, to be the person whose name is signed on the preceding document, and acknowledged to me that he signed it voluntarily for its stated purpose.

[affix seal]

/s/ Yessica Perez

Notary Public

My commission expires: 12/04/2011

[Signature page for Cerulean]

Assignee hereby accepts this Assignment.

Witness my hand and seal this 23 day of June, 2009.

**CERULEAN PHARMA INC.**

/s/ Jean Silveri

Name: Jean Silveri

Title: SVP, General Counsel

**COMMONWEALTH OF MASSACHUSETTS**

County of Middlesex

On this 23<sup>rd</sup> day of June, 2009, before me, the undersigned notary public, personally appeared Jean M. Silveri, proved to me through satisfactory evidence of identification, which was Drivers License – MA, to be the person whose name is signed on the preceding document, and acknowledged to me that he signed it voluntarily for its stated purpose.

[affix seal]

/s/ Felicia A. Miles

Notary Public Felicia A. Miles

My commission expires: September 10, 2015

**Schedule A**

**Assignment of Patents**

<b>FILE NUMBER</b>	<b>COUNTRY NAME</b>	<b>STATUS</b>	<b>TITLE</b>	<b>CUSTOM STATUS</b>	<b>SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>ISSUE DATE</b>	<b>PATENT NUMBER</b>	<b>OWNER</b>
[Redacted]									
[Redacted]									

Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of six pages were omitted. [\*\*]

**Exhibit H**

**Third Party Vendor Payments**

**Third Party Vendor:**

[\*\*]

**Portion of Initial Payment to be  
Paid to such Vendor on  
Calando's Behalf:**

[\*\*]

H-1

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**Exhibit I**

**Press Releases**

*attached*

I-1





PRESS RELEASE  
June 24, 2009  
7:00 A.M. ET

Investor Relations Contact:  
Sanjay M. Hurry  
The Piacente Group, Inc.  
212-481-2050  
sanjay@tpg-ir.com

**Arrowhead Subsidiary Calando Pharmaceuticals Enters into  
License Agreement with Cerulean Pharma Inc.**

*- Calando To License Cyclosert™ Platform and Associated IT-101 Drug Candidate for Upfront Payment of \$2.4 Million, Milestone Payments and Royalties from Product Sales; Agreement Creates Substantial Potential Revenue Stream -*

PASADENA, Calif. – June 23, 2009 – Arrowhead Research Corporation (NASDAQ: ARWR) today announced that its Calando Pharmaceuticals, Inc. subsidiary has entered into a worldwide license agreement with Cerulean Pharma Inc. for Calando’s drug delivery platform, Cyclosert™, and associated clinical stage anti-cancer drug, IT-101. The agreement is part of Calando’s strategy to minimize its burn rate while retaining upside exposure via partnerships with high quality companies that will continue the development of Calando’s platforms and drug candidates. Importantly, this agreement does not include rights to develop and commercialize RNAi products or the clinical-stage RNAi candidate, CALAA-01, both of which Calando intends to partner separately.

Under the terms of the agreement, Cerulean made an upfront payment of \$2.4 million to Calando and will make development milestone payments of up to \$2.75 million if IT-101 progresses through clinical trials and receives marketing approval. If approved, Calando is also entitled to receive up to an additional \$30 million in sales milestone payments, plus royalties on net sales.

As a platform delivery system, Cyclosert™ may be utilized to generate a very large number of new drugs in addition to IT-101, and under the agreement with Cerulean, Calando will participate in any potential upside related to the development of other drugs using the delivery platform. For *each* new drug candidate that Cerulean is able to bring to market utilizing the Cyclosert™ system, Calando will be entitled to \$3 million in development milestone payments.

Once these products reach the market, Calando could potentially receive an additional \$15 million in sales milestone payments, plus royalties on net sales.

Commenting on the partnership, Dr. Christopher Anzalone, Arrowhead’s President and Chief Executive Officer, stated, “We strongly believe in IT-101 and the Cyclosert™ platform, and this

transaction goes a long way toward achieving our dual strategy of decreasing costs *while* working to monetize these potentially powerful assets. We believe that Cerulean will be a terrific partner given its focus on nanoparticle-based drugs, strong financial position, and high quality management team. We look forward to our mutual future success.”

“Calando’s cyclodextrin co-polymer based technology is founded on elegant chemistry, and the integration of this platform into our program fully leverages the expertise and capabilities that we have built,” said Dr. Oliver Fetzer, President and Chief Executive Officer of Cerulean. “We look forward to applying the technology against a range of product opportunities, as well as further advancing IT-101 in the clinic.”

#### ***About Arrowhead Research Corporation***

Arrowhead Research Corporation ([www.arrowheadresearch.com](http://www.arrowheadresearch.com)) (NASDAQ: ARWR) is a nanotechnology company commercializing new technologies in the areas of life sciences, electronics, and energy. Arrowhead is seeking to build value for shareholders through the progress of majority owned subsidiaries. Currently, Arrowhead has four subsidiaries commercializing nanotech products and applications and minority investments in two privately held nanobiotech companies.

#### ***About Calando Pharmaceuticals Inc.***

Calando Pharmaceuticals Inc. ([www.calandopharma.com](http://www.calandopharma.com)), a majority-owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR), has developed proprietary technologies to create targeted siRNA-based therapeutics and small molecule nanoparticle drug conjugates. Calando’s innovative CycloSert™ and RONDEL™ nanoparticle systems have been designed to solve the long-standing obstacle of effective delivery and targeting for oligonucleotide and small molecule therapeutics. Calando has developed two clinical stage drug candidates for the treatment of cancer.

#### ***About Cerulean Pharma Inc.***

Cerulean Pharma Inc. is a privately-held biopharmaceutical company focused on the development of novel, nanotechnology-based therapeutics in the areas of oncology, cardiovascular, autoimmune and inflammatory diseases. The Company has assembled a world-class management team, board of directors and scientific advisory board that collectively have a significant track record of business building, product development and scientific breakthroughs from companies and institutions such as Millennium Pharmaceuticals, Pfizer, GlaxoSmithKline, the Massachusetts Institute of Technology, Harvard Medical School, MD Anderson, Fox Chase Cancer Center and the Arizona Health Center. The company has been funded by leading investors Polaris Venture Partners, Venrock, Lux Capital, Bessemer Venture Partners, Alexandria Real Estate Equities, and William H. Rastetter. Cerulean is located in Cambridge, Massachusetts. For more information, please visit the company’s website at [www.ceruleanrx.com](http://www.ceruleanrx.com).

#### ***Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995:***

This news release contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. These statements are based

upon our current expectations and speak only as of the date hereof. Our actual results may differ materially and adversely from those expressed in any forward-looking statements as a result of various factors and uncertainties, including the recent economic slowdown, capital resources available to us, the future success of our scientific studies, our ability to successfully develop products, rapid technological change in our markets, changes in demand for our future products, legislative, regulatory and competitive developments and general economic conditions. For example, there can be no assurance that IT-101 will successfully advance through clinical trials or that Arrowhead will receive any of the future milestone or royalty payments that are described in this release. Similarly, there can be no assurance that other drugs will be successfully developed using the Cycloset™ platform. It is possible that Arrowhead could receive no additional payments or revenues from this arrangement beyond the upfront payment described above. Our most recent Annual Report on Form 10-K, as amended, and subsequent Quarterly Reports on Form 10-Q and other SEC filings discuss some of the important risk factors that may affect our business, results of operations and financial condition, including the risks relating to the development of new drug candidates. We disclaim any intent to revise or update publicly any forward-looking statements for any reason.

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I-4

## **Cerulean Pharma Inc. Announces License Agreement with Calando Pharmaceuticals, Inc., a Subsidiary of Arrowhead Research Corporation**

CAMBRIDGE, MA. – June 23, 2009 - Cerulean Pharma Inc., a biopharmaceutical company focused on developing intelligently designed, nanoparticle-based drugs, announced today that it has entered into an exclusive, worldwide license agreement with Calando Pharmaceuticals, Inc., a majority-owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR). Calando will receive an upfront payment as well as development and sales milestones and sales royalties.

Under the terms of the agreement, Cerulean has acquired worldwide exclusive rights to Calando's proprietary cyclodextrin co-polymer based drug delivery technology to develop and commercialize therapeutic products arising from application of this technology. Additionally, Cerulean has acquired worldwide exclusive rights to develop and commercialize Calando's clinical stage anti-cancer product candidate, IT-101, a camptothecin nanoparticle with a highly differentiated and promising pre-clinical foundation that has just successfully progressed through a Phase 1 clinical trial.

Calando's cyclodextrin co-polymer based drug delivery technology was originally developed by world-renowned chemical engineering scientist Professor Mark Davis and exclusively licensed from California Institute of Technology. This technology incorporates biologically compatible components and enables formulation of self-assembled nanoparticles for pharmaceutical product development. Highly complementary to Cerulean's platform technologies, the cyclodextrin copolymer based technology adds to the breadth and scope of Cerulean's efforts. With IT-101 as the first-in-human product candidate of the technology, promising results from the completed Phase 1 study have provided strong proof-of-principle that this technology can provide a dramatic improvement in drug pharmacokinetics and safety.

"Calando's cyclodextrin co-polymer based technology is founded on elegant chemistry, and the integration of this platform into our program fully leverages the expertise and capabilities that we have built," said Dr. Oliver Fetzer, President and Chief Executive Officer of Cerulean. "We look forward to applying the technology against a range of product opportunities, as well as further advancing IT-101 in the clinic."

"We believe strongly in IT-101 and the cyclodextrin co-polymer based delivery platform," stated Arrowhead's President and Chief Executive Officer, Dr. Christopher Anzalone. "Cerulean is well-positioned to further develop these assets given its focus on nanoparticle-based drugs, strong financial position, and high quality management team. We look forward to our mutual future success."

### **About Cerulean Pharma Inc.**

Cerulean Pharma Inc. is a privately-held biopharmaceutical company focused on the development of novel, nanotechnology-based therapeutics in the areas of oncology, cardiovascular, autoimmune and inflammatory diseases. The Company has assembled a world-class management team, board of directors and scientific advisory board that collectively have a significant track record of business building, product development and scientific breakthroughs from companies and institutions such as Millennium Pharmaceuticals, Pfizer, GlaxoSmithKline,

the Massachusetts Institute of Technology, Harvard Medical School, MD Anderson, Fox Chase Cancer Center and the Arizona Health Center. The company has been funded by leading investors Polaris Venture Partners, Venrock, Lux Capital, Bessemer Venture Partners, Alexandria Real Estate Equities, and William H. Rastetter. Cerulean is located in Cambridge, Massachusetts. For more information, please visit the company's website at [www.ceruleanrx.com](http://www.ceruleanrx.com).

#### **About Arrowhead Research Corporation**

Arrowhead Research Corporation ([www.arrowheadresearch.com](http://www.arrowheadresearch.com)) (NASDAQ: ARWR) is a nanotechnology company commercializing new technologies in the areas of life sciences, electronics, and energy. Arrowhead is seeking to build value for shareholders through the progress of majority owned subsidiaries. Currently, Arrowhead has four subsidiaries commercializing nanotech products and applications and minority investments in two privately held nanobiotech companies.

#### **About Calando Pharmaceuticals Inc.**

Calando Pharmaceuticals Inc. ([www.calandopharma.com](http://www.calandopharma.com)), a majority-owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR), has developed proprietary technologies to create targeted siRNA-based therapeutics and small molecule nanoparticle drug conjugates. Calando's innovative CycloSert™ and RONDEL™ nanoparticle systems have been designed to solve the long-standing obstacle of effective delivery and targeting for oligonucleotide and small molecule therapeutics. Calando has developed two clinical stage drug candidates for the treatment of cancer.

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**Exhibit J**

**Escrow Agreement**

*attached*

J-1

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**Three-Party Escrow Agreement**

**Among**

**Calando Pharmaceuticals, Inc., Cerulean Pharma Inc.**

**and Escrow Associates, LLC**

**Escrow Associates, LLC encourages clients to modify the contracts as necessary to support their specific escrow requirements. Please contact us directly at (800) 813-3523 or [info@escrowassociates.com](mailto:info@escrowassociates.com)**

### Three-Party Escrow Agreement

This Technology Escrow Agreement (“Agreement”) among Escrow Associates, LLC (“Escrow Associates”), Cerulean Pharma Inc. (“Beneficiary”) and Calando Pharmaceuticals, Inc. (“Depositor”) is effective on this 22<sup>nd</sup> day of June 2009 (the “Effective Date”).

#### Recitals

Whereas, Depositor and Beneficiary anticipate entering into (i) an IT-101 Agreement (the “IT-101 Contract”) and a Platform Agreement (the “Platform Contract”), such IT-101 Contract and Platform Contract to be referred to herein collectively as the “Calando/Cerulean Contracts”.

Whereas, the purpose of this Agreement is to provide for the escrow of certain laboratory notebooks related to the Calando/Cerulean Contracts and to provide for certain circumstances under which Beneficiary shall be entitled to receive the Deposit Materials held in escrow by Escrow Associates.

Whereas, Beneficiary and Depositor hereby designate and appoint Escrow Associates as the escrow agent under this Agreement. Escrow Associates hereby accepts such designation and appointment and agrees to carry out the duties of escrow agent pursuant to the terms and provisions of this Agreement. Escrow Associates is not a party to, and is not bound by, any agreement that might be evidenced by, or might arise out of, any prior or contemporaneous dealings between Depositor and Beneficiary other than as expressly set forth herein.

Whereas, Escrow Associates shall establish three (3) separate deposit accounts (“Deposit Accounts”) hereunder for the FA, RA & PA (as defined by Depositor on Exhibit D hereto) Deposit Materials respectively. Deposit Materials shall only be stored and released according to the terms herein. Deposit Materials from respective Deposit Accounts shall never be commingled or combined in any way

NOW, THEREFORE, for and in consideration of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound hereby, covenant and agree as follows:

#### 1. Deposit Materials

- (a) Initial Deposit - On the Effective Date, Depositor shall submit an initial deposit consisting of (i) one paper deposit of [\*\*] (listed in Exhibit D) original, complete and witnessed laboratory notebooks related to the business of Depositor and reflecting inventions from the inception of Depositor’s business through the Effective Date of this Agreement, (ii) a digital copy of the laboratory notebooks described above in Section 1(a) (i), and (iii) a master inventory list referencing each deposited laboratory notebook, including without limitation, its assigned number and the individual to whom the laboratory notebook was issued (collectively the “Deposit Materials”) to be deposited in Escrow Associates’ Atlanta, Georgia facility. Depositor shall complete and deliver with all Deposit Materials a form as shown herein as Exhibit B, which shall then become part of this Agreement. Upon receipt of the initial deposit, Escrow Associates will verify



- (i) the total number of laboratory notebooks, (ii) that each laboratory notebook listed on the master inventory list is included in the initial deposit and (iii) that the individual to whom the laboratory notebook was issued as listed in each laboratory notebook corresponds to the same individual noted on the master inventory list. In the event that Deposit Materials (initial or subsequent updates) are not clearly labeled as described above or there are other unforeseen issues in receiving, inventorying or storing the Deposit Materials, Escrow Associates reserves the right to invoice (as provided for on Exhibit A hereto) for time associated with sorting Deposit Materials, communicating with Depositor to correctly identify and label Deposit Materials or other time spent outside of normal services defined herein. Escrow Associates will provide a written estimate to Beneficiary for such services and obtain written approval before commencing such work. Escrow Associates will notify Beneficiary and Depositor of the results of such verification, expressly noting any discrepancies within [\*\*] business days of receipt of the initial Deposit Materials. Any additional verification services shall be as mutually agreed upon in writing between Escrow Associates and Beneficiary. Escrow Associates has no obligation with respect to the initial Deposit Materials for delivery, functionality, completeness, or initial quality.
- (b) Deposit Material Updates - Depositor shall promptly submit any updates to the initial Deposit Materials to Escrow Associates. Depositor shall complete and deliver with all updates to the Deposit Materials an amended Exhibit B form, which shall additionally become part of this Agreement. Upon receipt of the updated deposit, Escrow Associates will verify (i) the total number of laboratory notebooks included in the update, (ii) that each laboratory notebook listed on the updated master inventory list is included in the update and (iii) that the individual to whom the laboratory notebook was issued as listed in each laboratory notebook corresponds to the same individual noted on the master inventory list. Escrow Associates will notify Beneficiary and Depositor of the results of such verification, expressly noting any discrepancies within [\*\*] business days of receipt of updates to the Deposit Materials. Escrow Associates has no obligation with respect to the updates to the Deposit Materials for delivery, functionality, completeness, or initial quality.
- (c) Electronic Deposit – In the event Depositor elects to utilize electronic means to transfer the Deposit Materials to Escrow Associates, whether through a service provided by Escrow Associates or other means, Escrow Associates shall not be liable for transmissions that fail in part or in whole, are lost, or are otherwise compromised during transmission. Furthermore, Escrow Associates shall not be liable for any subsequent services that may or may not be delivered as a result of a failed transfer. Escrow Associates shall not be liable to Depositor or Beneficiary for any encrypted update, or any part thereof, that is transmitted over the Internet to Escrow Associates' FTP Site but is not received in whole or in part, or for which no notification of receipt is given.

- (d) Duplication of Deposit Materials - Escrow Associates may duplicate the Deposit Materials only as necessary to comply with the terms of this Agreement. Escrow Associates at its sole discretion may retain a third party for the purpose of duplicating the Deposit Materials only as necessary to comply with the terms herein. All duplication expenses shall be borne by the party requesting duplication. Any such third party shall be bound by the same confidentiality obligations as Escrow Associates and shall not be a direct competitor to either Depositor or Beneficiary. Escrow Associates shall be responsible for the services of such third party as if Escrow Associates had performed such services.
- (e) Deposit Material Verification - Escrow Associates may be retained by separate agreement or by alternative means, to conduct a test of the Deposit Materials to determine the completeness and accuracy of the Deposit Materials. Escrow Associates shall not be liable for any actions taken on the part of any third party (other than its subcontractors or affiliates) with regards to the Deposit Materials.
- (f) Storage. Escrow Associates shall store all electronic media held under this Agreement in a media vault facility designed specifically for the storage and protection of magnetic media. All papers held under this Agreement will be held in a document archive room designated for storing and protecting paper documents. At all times, Deposit Materials will be stored and protected under the control of Escrow Associates unless otherwise agreed to in writing by all the parties.

## 2. Term

- (a) The term of this Agreement is for a period of one (1) year from the Effective Date (“Initial Term”) and will automatically renew for additional one (1) year terms (“Renewal Term”) (collectively the “Term”). This Agreement shall continue in full force and effect until one of the following events occur: (i) Depositor and Beneficiary provide Escrow Associates with thirty (30) days’ prior written joint notice of their intent to terminate this Agreement; (ii) Beneficiary provides Escrow Associates and Depositor with thirty (30) days’ prior written notice of its intent to terminate this Agreement; (iii) the Agreement terminates under another provision of this Agreement; or (iv) any time after the Initial Term, Escrow Associates provides a sixty (60) days’ prior written notice to the Depositor and Beneficiary of Escrow Associates’ intent to terminate this Agreement. If the Effective Date is not specified above, then the last date noted on the signature blocks of this Agreement shall be the Effective Date. In the event Escrow Associates terminates this Agreement (other than as a result of a Release Condition), unless otherwise agreed in writing by Beneficiary, Depositor consents to the transfer of the Deposit Materials to another reputable, nationally-known escrow agent and Beneficiary and Depositor shall enter into another tri-party escrow agreement among such new escrow agent, Depositor and Beneficiary, with terms that are substantially the same as those contained herein. Escrow Associates shall assist in the orderly transfer of the Deposit Materials to such new escrow agent provided all outstanding fees owed to Escrow Associates have been paid in full, however, Beneficiary shall be responsible for applicable shipping costs.

- (b) Unless the express terms of this Agreement provide otherwise, upon termination of this Agreement, Escrow Associates shall use best efforts to immediately return the Deposit Material to the Depositor or an affiliate thereof. Unless otherwise directed by Depositor, Escrow Associates will use a commercially recognized overnight common carrier such as Federal Express or United Parcel Service to return the Deposit Material to the Depositor. Escrow Associates will not be responsible for any loss or destruction of, or damage to, such Deposit Material while in the custody of the common carrier. If reasonable attempts to return the Deposit Material to Depositor are unsuccessful, Escrow Associates shall deliver such Deposit Materials to Beneficiary. If reasonable attempts to send the Deposit Material to Beneficiary are unsuccessful, Escrow Associates shall destroy the Deposit Material.
- (c) In the event of the nonpayment of undisputed fees owed to Escrow Associates, Escrow Associates shall provide all parties to this Agreement with written notice of Escrow Associates' intent to terminate this Agreement. Any Party to this Agreement shall have the right to make the payment to Escrow Associates to cure the default. If the past due payment is not received in full by Escrow Associates within [\*\*] calendar days of the date of such written notice, then Escrow Associates shall have the right to terminate this Agreement at any time thereafter by sending written notice to all parties. Escrow Associates shall have no obligation to perform the services under this Agreement (except those obligations that survive termination of this Agreement, which includes the confidentiality obligations in Section 8 so long as any undisputed fees due Escrow Associates under this Agreement remain unpaid).

### 3. Fees

- (a) Payment - Upon receipt of signed Agreement or initial Deposit Materials, whichever comes first, Escrow Associates will submit an initial invoice to Beneficiary for the amount shown on Exhibit A attached hereto. If payment is not received, Escrow Associates shall have no obligation to perform its duties under this Agreement. Beneficiary agrees to pay to Escrow Associates all additional fees for services rendered related to this Agreement as shown on Exhibit A to the extent agreed upon by Beneficiary in writing. The fee for any service that is not expressly covered in Exhibit A shall be established by Escrow Associates upon request. Escrow Associates shall not perform any additional services unless agreed upon in writing by Beneficiary. All fees are due within [\*\*] days of Escrow Associates execution of this Agreement. Escrow Associates may amend Exhibit A at any time upon [\*\*] days written notice to Beneficiary and Depositor. For the purpose of clarity, Beneficiary is the sole paying party under this Agreement. Therefore, Escrow Associates releases Depositor or its affiliates or their officers, directors or employees ("Depositor Releasees") from any and all claims or attempts to collect any fees due hereunder from Depositor Releasees.

To the extent undisputed fees due Escrow Associates by Beneficiary under this Agreement remain unpaid, Escrow Associates shall not pursue Depositor Releasees or hold them liable for such fees nor shall it place any lien, security interest or the like on or refuse to return Deposit Materials to Depositor as a result of such undisputed fees due Escrow Associates by Beneficiary. If Beneficiary unilaterally terminates the Agreement under Section 1. Beneficiary shall cover all Escrow Associates fees and expenses required to return Deposit Materials to Depositor and shall indemnify Depositor Releasees for all claims, losses and liabilities from Escrow Associates associated with the return of the Deposit Materials to Depositor and Beneficiary's unilateral termination of the Agreement.

- (b) Currency - All fees are in U.S. dollars and payment must be rendered in U.S. dollars unless otherwise agreed to in advance by Escrow Associates.

4. Indemnification - Anything in this Agreement to the contrary notwithstanding, Depositor at its own expense shall defend and hold Escrow Associates (the "Indemnified Party") fully harmless against any claim or action asserted against the Indemnified Party (specifically including costs and reasonable attorneys' fees associated with any such claim or action) to the extent such claim or action is based on an assertion that Escrow Associates' proper administration of this Agreement, within the scope of this Agreement, infringes any patent, copyright, license or other proprietary right of any third party. When the Indemnified Party has notice of a claim or action, it shall promptly notify Depositor in writing. At its option, Depositor may elect to control defense of such claim or action and may elect to enter into a settlement agreement, provided that no such settlement or defense shall include any admission or implication of wrongdoing on the part of the Indemnified Party without such party's prior written consent, which consent shall not be unreasonably delayed or withheld. Escrow Associates shall have the right to employ separate counsel and participate in the defense of any claim at its own expense.

#### 5. Representations and Warranties

- (a) Depositor represents that it lawfully possesses all Deposit Materials provided to Escrow Associates under this Agreement and that any current or future Deposit Materials liens or encumbrances will not prohibit, limit, or alter the rights and obligations of Escrow Associates under this Agreement. Depositor warrants that with respect to the Deposit Materials, Escrow Associates' proper administration of this Agreement will not violate the rights of any third parties.
- (b) Depositor represents that all Deposit Materials are clearly labeled in a manner that will allow Escrow Associates to complete visual inspection and confirmation of receipt of Deposit Materials as described in Section 1 (b) hereto, readable and useable in its then current form; if any portion of such Deposit Material is encrypted, the necessary decryption tools and keys to read such material are deposited contemporaneously.
- (c) Depositor represents that all Deposit Material is provided with all rights necessary for Escrow Associates to verify such Deposit Material or agrees to use

commercially reasonable efforts to provide Escrow Associates with any necessary use rights or permissions to use materials necessary to perform verification of the Deposit Material. Depositor agrees to reasonably cooperate with Escrow Associates by providing reasonable access to its scientific personnel for verification Services whenever reasonably necessary.

- (d) Depositor warrants that all Depositor information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Depositor information during the Term of this Agreement.
- (e) Beneficiary warrants that all Beneficiary information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Beneficiary information during the Term of this Agreement.
- (f) Escrow Associates warrants any and all services provided hereunder shall be performed in a workmanlike manner consistent with the measures Escrow Associates takes to protect its own information of a similar nature, but in no case less than a reasonable level of care. Escrow Associates further warrants that Escrow Associates shall maintain all Deposit Materials in a secure, fireproof vault in facilities containing fire-code compliant sprinkler systems and shall take all commercially reasonable efforts necessary to protect and safeguard such Deposit Materials.

6. Release of Deposit Materials The Deposit Materials will be released to Beneficiary after the receipt of the written request for release only in the event that the release procedure set forth in Exhibit C is followed.

7. Disputes. Any dispute, difference or question relating to or arising among any of the parties concerning the construction, meaning, effect or implementation of this Agreement or the rights or obligations of any party hereof will be submitted to, and settled by arbitration by a single arbitrator chosen by the corresponding Regional Office of the American Arbitration Association in accordance with the Commercial Rules of the American Arbitration Association. The parties shall submit briefs of no more than [\*\*] pages and the arbitration hearing shall be limited to [\*\*] days maximum. The arbitrator shall apply Massachusetts law. Unless otherwise agreed by the parties, arbitration will take place in the city of the party against which arbitration is filed. Any court having jurisdiction over the matter may enter judgment on the award of the arbitrator. Service of a petition to confirm the arbitration award may be made by regular mail or by commercial express mail, to the attorney for the party or, if unrepresented, to the party at the last known business address. If however, Depositor or Beneficiary refuse to submit to arbitration, the matter shall not be submitted to arbitration and Escrow Associates may submit the matter to any court of competent jurisdiction for an interpleader or similar action. Unless adjudged otherwise, any costs incurred by Escrow Associates, including reasonable attorney's fees and costs, shall be divided equally and paid by Depositor and Beneficiary.

8. Confidentiality – Escrow Associates shall have the obligation to implement and maintain commercially reasonable safeguards designed to protect the confidentiality of the Deposit Materials. Except as otherwise required to carry out its duties under this Agreement, Escrow

Associates shall hold in strictest confidence and not permit any third party access to, nor otherwise use, disclose, transfer or make available the Deposit Materials except as otherwise provided herein, unless consented to in writing by Depositor. If Escrow Associates receives a subpoena or any other order from a court or other judicial tribunal pertaining to the disclosure or release of the Deposit Material, Escrow Associates will promptly notify the parties to this Agreement unless prohibited by law. After notifying the parties, Escrow Associates may comply in good faith with such order. It shall be the responsibility of Depositor or Beneficiary to challenge any such order; provided, however, that Escrow Associates does not waive its rights to present its position with respect to any such order. Escrow Associates will cooperate with the Depositor or Beneficiary, as applicable, to support efforts to quash or limit any subpoena, at such party's expense. Any party requesting additional assistance shall pay Escrow Associates' standard charges or as quoted upon submission of a detailed request.

9. Limitation of Liability.

- (a) Except for Escrow Associates' breach of Section 8, under no circumstance shall any party be liable for any special, incidental, or consequential damages (including lost profits) arising out of this Agreement even if such party has been apprised of the possibility of such damages. In performing any of its duties hereunder, Escrow Associates shall not incur any liability to any party for any damages, losses, or expenses, except for Escrow's breach of Section 8, willful misconduct or negligence on the part of Escrow Associates, and it shall not incur any liability with respect to any action taken or omitted in reliance upon any written notice, request, waiver, consent, receipt or other document provided by Authorized Persons which Escrow Associates in reasonably good faith believes to be genuine.
- (b) EXCEPT FOR: (I) ANY CLAIMS OF INFRINGEMENT OF ANY PATENT, COPYRIGHT, OR TRADEMARK; (II) LIABILITY FOR DEATH OR BODILY INJURY; (III) NEGLIGENCE OR WILLFUL MISCONDUCT; (IV) ESCROW ASSOCIATES' BREACH OF SECTION 8, OR (V) THE INFRINGEMENT INDEMNIFICATION OBLIGATIONS OF SECTION 4, ALL OTHER LIABILITY RELATED TO THIS AGREEMENT, IF ANY, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, OF ANY PARTY TO THIS AGREEMENT SHALL BE LIMITED TO THE AMOUNT EQUAL TO TWO TIMES THE FEES PAID TO ESCROW ASSOCIATES UNDER THIS AGREEMENT.

10. Authorized Persons/Notices

- (a) Authorized Person(s). Depositor and Beneficiary must each authorize and designate at least one person whose actions will legally bind such party ("Authorized Person") who shall be identified in the Authorized Person(s) Notices Table of this Agreement and who may manage the Escrow Associates escrow account through the Escrow Associates website or written instruction. The Authorized Person for each the Depositor and Beneficiary will maintain the accuracy of their name and contact information provided to Escrow Associates during the Term of this Agreement. Beneficiary and Depositor may each add or delete Authorized Person(s) by written notice to Escrow Associates.

- (b) Right to Rely on Instructions. With respect to Release of Deposit Material or the destruction of Deposit Material, Escrow Associates shall rely on instructions from a party's Authorized Person(s). In all other cases, Escrow Associates may act in reliance upon any labeling of Deposit Materials, instruction, instrument, or signature reasonably believed by Escrow Associates to be genuine and from an Authorized Person(s), officer, or other employee of a party. Escrow Associates may assume that such representative of a party to this Agreement who gives any written notice, request, or instruction has the authority to do so. Escrow Associates will not be required to inquire into the truth of, or evaluate the merit of, any statement or representation contained in any notice or document reasonably believed to be from such representative.
- (c) Notices. Notices shall be deemed received on the third business day after being sent by first class mail, or on the following day if sent by commercial express mail. All notices under this Agreement shall be in writing and addressed and sent to the Authorized Person(s) listed in the space provided below:

DEPOSITOR — Authorized Person(s)/Notices Table

Print Name:	[**]
Title:	[**]
Email Address	[**]
Address 1	Calando Pharmaceuticals, Inc.
Address 2	201 S. Lake Avenue Suite 703
City/State/Province	Pasadena, CA
Postal/Zip Code	91101
Phone Number	626.304.3400
Fax Number	626.304.3401

BENEFICIARY — Authorized Person(s)/Notices Table

Print Name:	[**]	Print Name:	[**]
Title:	[**]	Title:	[**]
Email Address	[**]	Email Address	[**]
Address 1	161 First Street	Address 1	161 First Street

Address 2  
City/State/Province Cambridge, MA  
Postal/Zip Code 02142  
Phone Number 617-551-9600  
Fax Number 617-494-1544

Address 2  
City/State/Province Cambridge, MA  
Postal/Zip Code 02142  
Phone Number 617-551-9600  
Fax Number 617-494-1544

Billing Contact Information Table

	<u>DEPOSITOR</u>
Print Name:	[**]
Title:	[**]
Email Address	[**]
Street Address	Calando Pharmaceuticals, Inc.
Province/City/State	Pasadena, CA
Postal/Zip Code	91101
Phone Number	626.304.3400
Fax Number	626.304.3401
Purchase order #	

	<u>BENEFICIARY</u>
Print Name:	[**]
Title:	[**]
Email Address	[**]
Street Address	161 First Street
Province/City/State	Cambridge, MA
Postal/Zip Code	02142
Phone Number	617-551-9600
Fax Number	617-494-1544
Purchase order #	

Escrow Associates, LLC  
Attn: Contracts Administration  
8302 Dunwoody Place, Suite 150  
Atlanta, GA 30350 USA  
Telephone: 800-813-3523  
Fax: 770-518-2452  
Email: info@escrowassociates.com

11. Miscellaneous

- (a) Counterparts - This Agreement may be executed in any number of multiple counterparts, each of which is to be deemed an original, and all of such counterparts together shall constitute one and the same instrument.



- (b) Entire Agreement - This Agreement supersedes all prior and contemporaneous letters, correspondences, discussions and agreements among the parties with respect to all matters contained herein, and it constitutes the sole and entire agreement among them with respect thereto.
- (c) Limitation of Effect - This Agreement pertains strictly to the escrow services provided for herein and does not modify, amend or affect any other contract or agreement of one or more of the parties.
- (d) Modification - This Agreement shall not be altered or modified without the express written consent of all parties.
- (e) Bankruptcy Code – All rights and licenses granted under or pursuant to any section of this Agreement are, and shall otherwise be, deemed to be, for purposes of Title 11 United States Bankruptcy Code Section 365(n), licenses of rights to “Intellectual Property” as defined under Section 101(35A) of the Bankruptcy Code. The parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code.
- (f) Survival of Terms - All obligations of the parties intended to survive the termination of this Agreement, including without limitation, are the provisions of Sections 2 (Term), 3 (Fees), 4 (Indemnification), 5 (Representations and Warranties), 7 (Disputes), 8 (Confidentiality), 9 (Limitation of Liability), and 11 (Miscellaneous) which shall survive the termination of this Agreement for any reason.
- (g) Governing Law – The validity, interpretation, and performance of this Agreement shall be governed by the laws of the Commonwealth of Massachusetts, USA, as if performed wholly within the state and without giving effect to the principles of conflicts of laws.
- (h) Time of the Essence - Time is of the essence in this Agreement.
- (i) Successors and Assigns – No party may transfer or assign this Agreement, in whole or in part, provided however, that upon written notice to the other parties, any party may assign this Agreement to an affiliate, or in connection with a merger, consolidation, or a sale or transfer of all or substantially all of the assets to which this Agreement relates, provided that all obligations of such assigning party are assumed by the assignee. This Agreement shall be binding upon and inure to the benefit of the successors and assigns of the parties.
- (j) Additional Beneficiaries. No additional beneficiaries may be added except upon the prior written consent of Depositor and Beneficiary, which consent shall not be unreasonably withheld provided, at a minimum, the addition of such additional beneficiary(ies) shall be subject to the following conditions: (i) access to Deposit Materials by any such additional beneficiary(ies) shall be limited to access reasonably necessary in connection with Retained Products (as defined in the Platform Contract), (ii) such access shall, unless otherwise agreed to by

Beneficiary in writing, be limited to a release for a period of [\*\*] business days, at which point such Deposit Materials shall be returned to Escrow Associates or, in the event a termination or a release condition under Exhibit C of this Agreement has occurred, administered in accordance with the terms and conditions of this Agreement governing disposition of the Deposit Materials in the event of termination or the occurrence of the release conditions set forth in Exhibit C, (iii) Beneficiary shall at all times maintain a priority position with regard to access to any Deposit Materials, (iv) Beneficiary's rights pursuant to the Calando/Cerulean Contracts or this Agreement shall not be adversely affected, (v) Depositor shall disclose to Beneficiary the identity of such additional beneficiary(ies), the scope of the requested access, and such additional beneficiary(ies) shall enter into an appropriate written agreement to which Beneficiary shall, at its sole discretion, have the right to join as a party, and (vi) Depositor shall be liable for any costs associated therewith (and shall constitute a Paying Party for purposes of such beneficiary(ies)). For the avoidance of doubt, the release of Depositor and assumption of costs and indemnification obligations set forth in Section 3(a) of the Agreement shall not apply to any activities related to such additional beneficiary(ies).

**Depositor**

Signature: /s/ Christopher Anzalone  
Name: Christopher Anzalone  
Title: Chief Executive Officer  
Company: Calando Pharmaceuticals, Inc.  
Date: 6/22/09  
Contract Negotiated by: \_\_\_\_\_  
Negotiator Telephone: \_\_\_\_\_

**Beneficiary**

Signature: /s/ Jean M. Silveri  
Name: Jean M. Silveri  
Title: General Counsel  
Company: Cerulean Pharma Inc.  
Date: 6/19/09  
Contract Negotiated by: \_\_\_\_\_  
Negotiator Telephone: \_\_\_\_\_

**Escrow Associates, LLC**

Signature: /s/ Chris Smith  
Name: Chris Smith  
Title: President  
Date: 6-18-09

**Exhibit A**  
Schedule of Fees

**(Initial Year / Renewal)**

Three-Party Agreement      \$[\*\*]

Three-Party escrow agreement includes:

- Contract review & agreement drafting assistance
- Customization & set-up of agreement
- [\*\*] updates to escrow deposit material
- FTP depositing services
- Visual Inspection & Reports
- Online account management
- [\*\*] Releases & re-depositing of same Deposit Materials per year
  - \$[\*\*] per additional release over [\*\*]
- Notifications to all parties
- One Deposit account ([\*\*] Cu. Ft.) w/ state of the art media vault & Document Archive storage

**Additional Deposit Accounts:** \$      [\*\*]

Annual Fee. Includes; [\*\*] updates, FTP depositing, visual inspection and Reports, Notifications to all parties, online account access & [\*\*] cu. ft. media vault storage allowance. For the avoidance of doubt, any releases above the [\*\*] releases set forth above are at the rate of \$[\*\*] per additional release.

**Additional Storage** \$    [\*\*] / Cu. Ft.

**Annual Fee for storage required over and above standard [\*\*] Cu. Ft allocation.**

**Hourly Consulting Services (If necessary)**

**Account Specialist** \$      [\*\*] / hr.

**Executive** \$      [\*\*] / hr.

**Additional Beneficiary:** **Then Current fee Schedule**

Annual fee for efficiently enrolling additional Beneficiary to the existing escrow agreement.

**Exhibit B – FA Deposit Account ONLY**

Deposit Materials

Please complete Exhibit B form and enclose a copy with the Deposit Materials or contact us for details on electronic depositing.

**Attn: Vault Manager  
Escrow Associates, LLC  
8302 Dunwoody Place, Suite 150  
Atlanta, GA 30350 USA  
info@escrowassociates.com  
1-800-813-3523**

Company Name: Calando Pharmaceuticals, Inc.

Escrow Associates Deposit Account Name & Number: FA

**Three-Party Agreement**

**New Deposit Account**

**Two-Party Agreement**

**Update to existing Deposit Account**

Please list specific Beneficiaries under a Two-Party Agreement associated with this product/ update or check here to apply to all Beneficiaries:

\_\_\_\_\_  
\_\_\_\_\_

Media Description:

Quantity	Type	Description / Label
_____	DVD/CDR	_____
_____	DAT/DDS Tape	_____
_____	Documentation	_____

X Other -(i) paper deposit of [\*\*] laboratory notebooks,  
(ii) a digital copy of such laboratory notebooks, and  
(iii) a master inventory list referencing each deposited laboratory notebook

Book Number	Title	No. of Pages	Issued To	Issued On	End Date	Calando/Cerulean Contracts Designation*

Deposit Prepared by:

Signed: \_\_\_\_\_

E-mail: \_\_\_\_\_

Date: \_\_\_\_\_

Deposit Accepted by (*Escrow Associates*):

Signed: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Exhibit B – PA Deposit Account ONLY**

Deposit Materials

Please complete Exhibit B form and enclose a copy with the Deposit Materials or contact us for details on electronic depositing.

**Attn: Vault Manager  
Escrow Associates, LLC  
8302 Dunwoody Place, Suite 150  
Atlanta, GA 30350 USA  
info@escrowassociates.com  
1-800-813-3523**

Company Name: Calando Pharmaceuticals, Inc.

Escrow Associates Deposit Account Name & Number: PA

**Three-Party Agreement**

**New Deposit Account**

**Two-Party Agreement**

**Update to existing Deposit Account**

Please list specific Beneficiaries under a Two-Party Agreement associated with this product/ update or check here to apply to all Beneficiaries:

\_\_\_\_\_  
\_\_\_\_\_

Media Description:

Quantity	Type	Description / Label
_____	DVD/CDR	_____
_____	DAT/DDS Tape	_____
_____	Documentation	_____

X Other -(i) paper deposit of [\*\*] laboratory notebooks,  
(ii) a digital copy of such laboratory notebooks, and  
(iii) a master inventory list referencing each deposited laboratory notebook

Book Number	Title	No. of Pages	Issued To	Issued On	End Date	Calando/Cerulean Contracts Designation*

Deposit Prepared by:

Signed: \_\_\_\_\_

E-mail: \_\_\_\_\_

Date: \_\_\_\_\_

Deposit Accepted by (*Escrow Associates*):

Signed: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_



**Exhibit B – RA Deposit Account ONLY**

Deposit Materials - Please complete Exhibit B form and enclose a copy with the Deposit Materials or contact us for details on electronic depositing.

**Attn: Vault Manager  
Escrow Associates, LLC  
8302 Dunwoody Place, Suite 150  
Atlanta, GA 30350 USA  
info@escrowassociates.com  
1-800-813-3523**

Company Name: Calando Pharmaceuticals, Inc.

Escrow Associates Deposit Account Name & Number: RA

**Three-Party Agreement**

**New Deposit Account**

**Two-Party Agreement**

**Update to existing Deposit Account**

Please list specific Beneficiaries under a Two-Party Agreement associated with this product/ update or check here to apply to all Beneficiaries:

\_\_\_\_\_  
\_\_\_\_\_

Media Description:

Quantity	Type	Description / Label
_____	DVD/CDR	_____
_____	DAT/DDS Tape	_____
_____	Documentation	_____

X Other - (i) paper deposit of [\*\*] laboratory notebooks,  
(ii) a digital copy of such laboratory notebooks, and  
(iii) a master inventory list referencing each deposited laboratory notebook

Book Number	Title	No. of Pages	Issued To	Issued On	End Date	Calando/Cerulean Contracts Designation*

Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of four pages were omitted. [\*\*]

Deposit Prepared by: \_\_\_\_\_  
Signed: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Date: \_\_\_\_\_

Deposit Accepted by (*Escrow Associates*): \_\_\_\_\_  
Signed: \_\_\_\_\_  
Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**Credit Card/Wire Transfer Payment Form**

**CREDIT CARD PAYMENT INFORMATION**

Company Name / Account Number:  
Credit Card Number:  
Expiration Date:  
Card Type (Amex / Visa / etc.):  
Billing Name:  
Billing Address:  
Billing City State Zip:  
Transaction Amount:  
Escrow Associates Invoice Number:

If you would like Escrow Associates, LLC to charge the above credit card on an annual basis for this fee, please sign below. If at any time you choose to use an alternate method of payment, please notify us (in writing) at least thirty (30) days prior to the escrow account renewal date.

Client Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_

Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**WIRE TRANSFER PAYMENT INFORMATION**

Company Name & Address: Escrow Associates, LLC  
8302 Dunwoody Place, Suite 150  
Atlanta, GA 30350

Bank Name & Address: [\*\*]

Account Number: [\*\*]

Routing Number [\*\*]

Please contact us directly with any questions! Thank you for your business!

## Exhibit C

### Release Of Deposit Materials

Escrow Associates will use the following procedures to process any Beneficiary requests to release Deposit Materials. All notices under this Exhibit C shall be sent pursuant to the terms of Section 10 Authorized Persons/Notices.

1. **Release Conditions.** The Depositor and Beneficiary agree that a request for the release of the Deposit Material shall be based solely on one or more of the following conditions (defined as “Release Conditions”):
  - (a) Beneficiary’s most senior internal legal counsel or outside counsel determines in their professional and reasonable judgment that the Deposit Materials are reasonably necessary for (i) regulatory or governmental purposes, (ii) for litigation purposes, (iii) for the maintenance, prosecution or defense of intellectual property, or (iv) to resolve scientific or technical questions or to make corrections, in either case arising from the illegibility, inaccessibility or other errors in the digital copies of laboratory notebooks Beneficiary received directly from Depositor pursuant to the Calando/Cerulean Contracts; or
  - (b) the liquidation, termination of existence, dissolution, insolvency or business failure of the Depositor, or the appointment of a receiver or custodian for the Depositor or any part of its property; or
  - (c) the institution by or against the Depositor of any proceedings under the United States Bankruptcy Code or any other federal or state bankruptcy, reorganization, receivership, insolvency or other similar law affecting the rights of creditors generally or the making by the Depositor of a composition or an assignment or trust mortgage for the benefit of creditor; or
  - (d) Beneficiary in its sole discretion, elects to receive the content of the FA Deposit Account established herein, consisting of the following Notebooks: Nos. [\*\*] (collectively the “Full Access Notebooks”) as such Full Access Notebooks are further described in Exhibit D of this Agreement - Laboratory Notebook Master Inventory List, for any purpose related to the Cyclodextrin System or any Licensed Product (the terms “Cyclodextrin System” and “Licensed Product” shall be defined as set forth in the Calando/Cerulean Contracts).
2. **Release Request.** Beneficiary may submit a request to Escrow Associates to release the Deposit Material covered under this Agreement, which in the case of a release pursuant to Section 1(a) of this Exhibit C, may include a partial release of the Deposit Materials consisting of the entire contents of one or more Deposit Accounts hereto (i.e., individual Deposit Accounts FA, PA and/or RA, but not individual notebooks). Escrow Associates will send a written notice of this Beneficiary request within [\*\*] business days to the Depositor’s Authorized Person(s).

3. **Contrary Instructions.** From the date Escrow Associates mails written notice of the Beneficiary request to release Deposit Material covered under this Agreement, Depositor Authorized Person(s) shall have [\*\*] business days to deliver to Escrow Associates contrary instructions. Contrary instructions shall mean the written representation by Depositor that a Release Condition has not occurred (“Contrary Instructions”). Contrary Instructions shall be on company letterhead and signed by a Depositor Authorized Person. Upon receipt of Contrary Instructions, Escrow Associates shall in good faith and in best effort in [\*\*] business days, but in no event more than [\*\*] business days send a copy to Beneficiary’s Authorized Person(s). Additionally, Escrow Associates shall notify both Depositor and Beneficiary Authorized Person(s) that there is a dispute to be resolved pursuant to the Disputes provisions of this Agreement. Escrow Associates will continue to store Deposit Material without release pending (i) joint instructions from Depositor and Beneficiary with instructions to release the Deposit Material; or (ii) dispute resolution pursuant to the Disputes provisions of this Agreement; or (iii) receipt of an order from a court of competent jurisdiction.
4. **Release of Deposit Material.** If Escrow Associates does not receive timely Contrary Instructions from a Depositor Authorized Person in accordance with Section 3 above, Escrow Associates is authorized to release Deposit Material (or to the extent a partial release is requested pursuant to Section 1(a) of this Exhibit C, to release the requested Deposit Material) to the Beneficiary. Escrow Associates is entitled to receive any undisputed, unpaid Service Fees due Escrow Associates only from the Beneficiary before fulfilling the request to release Deposit Material covered under this Agreement. Any Party may cure a default of payment of Service Fees. Beneficiary hereby acknowledges that any contemplated release of Deposit Material under this Exhibit C to Beneficiary is intended to further the objectives, rights and obligations of Beneficiary and Depositor pursuant to the Calando/Cerulean Contracts and that nothing in this Agreement contemplates the assignment or transfer of ownership, title or licensing of rights to Beneficiary in a manner contrary thereto and that title and ownership of the physical Deposit Material shall remain in Depositor.
5. **Regulatory/Governmental Request.** Notwithstanding the foregoing Sections 2 and 3, in the event Beneficiary submits a request to Escrow Associates to release the Deposit Material covered under this Agreement, which in the case of a release pursuant to Section 1(a) of this Exhibit C, may include a partial release of the Deposit Materials consisting of the entire contents of one or more Deposit Accounts hereto (i.e., individual Deposit Accounts FA, PA and/or RA, but not individual notebooks), and such request states that the release is required for regulatory or governmental purposes, Escrow Associates shall in lieu of the process set forth in Sections 2 and 3, release in good faith and in best effort in [\*\*] business days, but in no event more than [\*\*] business days such requested Deposit Materials to Beneficiary and contemporaneously send a written notice of the Beneficiary request and confirmation of such release to the Depositor’s Authorized Person(s).
6. **Full Access Notebook Request.** Notwithstanding the foregoing Sections 2 and 3, in the event Beneficiary submits a request to Escrow Associates to release any Deposit Materials covered under this Agreement that constitute Full Access Notebooks which in

the case of a release pursuant to Section 1(d) of this Exhibit C, shall include the entire contents of the Deposit Account FA only (i.e., individual Deposit Account FA, but not individual notebooks in Deposit Account FA). Escrow Associates shall in lieu of the process set forth in Sections 2 and 3, release in good faith and in best effort in [\*\*] business days but in no event more than [\*\*] business days, such requested Deposit Materials to Beneficiary and contemporaneously send a written notice of the Beneficiary request and confirmation of such release to the Depositor's Authorized Person(s).

7. **Termination of Agreement Upon Release.** This Agreement will terminate upon the release of Deposit Material held by Escrow Associates; provided that, in the case of Section 1(a) of this Exhibit C, in the event only a portion of the Deposit Material is released, this Agreement shall remain in full force in effect. Under such circumstances Beneficiary shall be completely responsible for any and all monies due Escrow Associates; and Escrow Associates shall have no recourse to seek any outstanding monies from Depositor.
8. **Right to Use Following Release.** Beneficiary has the right under this Agreement to use (a) the Full Access Notebooks Deposit Materials for any purpose related to the Cyclodextrin System or any Licensed Product and (b) all other Deposit Material solely (i) for regulatory or governmental purposes, (ii) for litigation purposes, (iii) for the maintenance, prosecution or defense of intellectual property or (iv) to resolve scientific or technical questions or to make corrections, in either case arising from the illegibility, inaccessibility or other errors in the digital copies of laboratory notebooks Beneficiary received directly from Depositor pursuant to the Calando/Cerulean Contracts. Notwithstanding the foregoing, the Beneficiary shall not have access to the Deposit Material unless there is a release of the Deposit Materials in accordance with this Agreement. Beneficiary shall be obligated to maintain the confidentiality of the released Deposit Materials as Confidential Information of Depositor in accordance with the Calando/Cerulean Contracts. In the event of a partial release in accordance with Section 1(a) or Section 1(d) of this Exhibit C (unless otherwise required for regulatory, governmental or other legal requirements, or unless either of the release conditions set forth in Sections 1(b) or (c) of this Exhibit C have occurred), Beneficiary shall return such Deposit Materials as soon as possible once Beneficiary has reasonably satisfied the purpose for which such Deposit Materials were released.
9. **Communications.** Depositor and Beneficiary will have access to all communications relating to the escrow deposit account.

**Exhibit D**  
**Laboratory Notebook Master Inventory Sheet.**

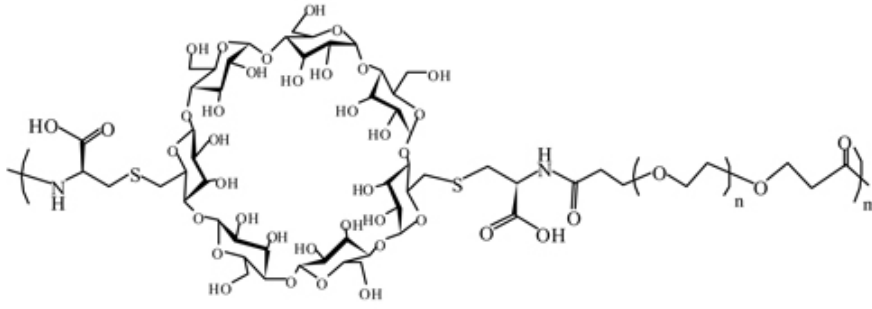
Book Number	Title	No. of Pages	Issued To	Issued On	End Date	Calando/Cerulean Contracts Designation*

Confidential materials omitted and filed separately with the Securities and Exchange Commission. A total of six pages were omitted. [\*\*]

\* Pursuant to the Calando/Cerulean Contracts "Full Access = FA", "Partial Access = PA", and "Restricted Access = RA". For the avoidance of doubt, (i) copies of laboratory notebooks provided directly to Beneficiary via the Calando/Cerulean Contracts shall be governed by the use provisions set forth in Section 8.7 of each Calando/Cerulean Contract and (ii) all Deposit Materials released pursuant to this Agreement shall be governed by the use provisions set forth in Exhibit C to this Agreement.

Exhibit K

Poly-Beta-Cyclodextrin-PEG



In the Poly-Beta-Cyclodextrin-PEG shown above, n = number of ethylene glycol repeating units (average n = 77 for PEG with MW 3400) and m = number of repeating units of CD-PEG (average m = 14 ± 4)

K-1



FIRST AMENDMENT TO PLATFORM AGREEMENT

THIS FIRST AMENDMENT TO PLATFORM AGREEMENT (“First Amendment”), dated as of November 1, 2010 (the “First Amendment Effective Date”), is by and between CALANDO PHARMACEUTICALS, INC. (“Calando”) and CERULEAN PHARMA INC. (“Cerulean”).

Background

WHEREAS, Calando and Cerulean are parties to a Platform Agreement dated as of June 23, 2009 (the “Platform Agreement”);

WHEREAS, Calando desires to sell, and Cerulean desires to purchase, additional quantities of poly-beta-cyclodextrin-PEG from Calando; and

WHEREAS, additional quantities of poly-beta-cyclodextrin-PEG are being stored by Calando with Cambrex Charles City, Inc. (“Cambrex”);

NOW THEREFORE, Calando and Cerulean agrees as follows:

Amendments

1. Calando hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Cerulean, and Cerulean hereby purchases from Calando, all right, title and interest in and to an additional [\*\*] grams of poly-beta-cyclodextrin-PEG (the “Additional Poly-CD-PEG”) for an aggregate purchase price of [\*\*] U.S. Dollars (US \$[\*\*]) (the “Additional Inventory Price”). The specific lot numbers and quantities per lot number from which the Additional Poly-CD-PEG will be drawn are set forth in Exhibit 1 attached hereto. The Additional Inventory Price shall be paid by Cerulean to Calando on the First Amendment Effective Date via wire transfer of immediately available funds to an account designated by Calando. Calando sells, transfers, conveys, assigns and delivers to Cerulean the Additional Poly-CD-PEG with no warranties express or implied of any kind beyond those expressly set forth in Section 7 of this First Amendment.

2. The Parties agree and acknowledge that Cerulean’s payment for the Additional Poly-CD-PEG is inclusive of all excise, sales, use, transfer and other taxes and duties (if any) imposed with respect to the Additional Poly-CD-PEG or its sale by any governmental authority (all of which shall be the responsibility of, and will be paid by, Calando).

3. Title to and possession of the Additional Poly-CD-PEG will be delivered to Cerulean, free and clear of any encumbrances, on the First Amendment Effective Date in its current location and condition at the premises of Cambrex (or one of its Affiliates) in Charles City, Iowa. Cerulean shall be responsible for all expenses and fees related to the storage, removal and transportation of the Additional Poly-CD-PEG from and after the First Amendment Effective Date, while Calando shall be responsible for all expenses and fees related to the storage, removal and transportation of the Additional Poly-CD-PEG prior to the First Amendment Effective Date. Risk of loss or damage, liability for, and responsibility to insure the Additional Poly-CD-PEG will pass to Cerulean on the First Amendment Effective Date.

4. As of the First Amendment Effective Date, Calando shall have:

(a) executed and delivered to Cerulean a bill of sale substantially in the form attached hereto as Exhibit 2 (the “Bill of Sale”) and such other instruments of conveyance as Cerulean may reasonably request in order to effect the sale, transfer, conveyance and assignment to Cerulean of valid ownership to the Additional Poly-CD-PEG;

(b) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, pursuant to which the appropriate Affiliate of Cambrex acknowledges that the ownership of the Additional Poly-CD-PEG has been transferred to Cerulean and releases such Additional Poly-CD-PEG from any Lien;

(c) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, that the Additional Poly-CD-PEG has been stored under cGMP conditions since its initial release by Cambrex, that no major temperature excursions have occurred since its initial release by Cambrex, and that the Additional Poly-CD-PEG has not been exposed to any other adverse conditions since May 6, 2009;

(d) supplied Cerulean with copies of all manufacturing, testing and storage records pertaining to the Additional Poly-CD-PEG in its possession; and

(e) sent to Cambrex and supplied Cerulean with an access letter substantially in the form attached hereto as Exhibit 3.

5. As of the First Amendment Effective Date, Cerulean shall have:

(a) executed and delivered to Calando the Bill of Sale; and

(b) recertified the Additional Poly-CD-PEG to its satisfaction.

6. At any time and from time to time hereafter, Calando, at Cerulean’s request and without further consideration, shall execute and deliver, or cause to be duly executed and delivered (including by its Affiliates and employees), such further instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents and instruments, as may be necessary or as Cerulean may reasonably request to more effectively transfer, convey and assign to Cerulean, and to confirm Cerulean’s title to, the Additional Poly-CD-PEG and to put Cerulean in actual possession and control of the Additional Poly-CD-PEG.

7. Calando warrants to Cerulean that:

(a) Immediately prior to the First Amendment Effective Date and the assignment pursuant to Section 1 of this First Amendment, (i) Calando was the sole, true and lawful owner of, and had good title to, the Additional Poly-CD-PEG, free and clear of all Liens of any kind; (ii) Calando is not, and has not been, bound by any policies or agreements under which the Additional Poly-CD-PEG has been or will be assigned to anyone other than Cerulean; (iii) Calando has the right to sell and transfer to Cerulean good, clear record and title to the Additional Poly-CD-PEG, free and clear of all Liens of any kind; and (iv) upon execution and

delivery to Cerulean of this Agreement and the instruments of conveyance referred to in Section 4 of this First Amendment, Cerulean will become the sole, true and lawful owner of, and receive good title to, the Additional Poly-CD-PEG, free and clear of all Liens.

(b) To its knowledge, all Additional Poly-CD-PEG was manufactured in accordance with cGMP and, to its knowledge, the specifications set therefor by Calando and conform to such specifications.

8. For purposes of clarity, the Parties agree that clause (b) of Section 10.2 of the Agreement shall be interpreted to include the representations, warranties and covenants made by Calando in this First Amendment.

9. Capitalized terms used herein and not otherwise defined shall have the meanings given such terms ion the Agreement.

10. All other terms and conditions of the Platform Agreement shall remain in full force and effect.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Parties hereto have caused this First Amendment to Platform Agreement to be executed as a sealed instrument in their names by their properly and duly authorized officers or representatives as of the date first above written.

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone  
Christopher Anzalone  
Chief Executive Officer

CERULEAN PHARMA INC.

By: /s/ Jean Silveri  
Jean Silveri  
Senior Vice President, General Counsel

Arrowhead Research Corporation, hereby (a) makes the same representations and warranties to Cerulean as Calando makes to Cerulean under this First Amendment and (b) agrees to indemnify Cerulean to the same extent as Calando indemnifies Cerulean pursuant to Section 10.2 from any Losses relating to or in connection with a Third Party claim arising out of any breach by Arrowhead of its representations or warranties as described in clause (a), and for which indemnification Calando and Arrowhead shall be jointly and severally liable to Cerulean and the Cerulean Indemnitees.

ARROWHEAD RESEARCH CORPORATION

By: /s/ Christopher Anzalone  
Christopher Anzalone  
President and Chief Executive Officer

Exhibit 1

Lots and Quantities

	<u>Lot Number at Cambrex</u>	<u>Quantity of Poly-CD-PEG</u>
	[**]	[**]
Total		[**]

**BILL OF SALE**

This Bill of Sale dated November 1, 2010 is executed and delivered by Calando Pharmaceuticals, Inc., a Delaware corporation (the "Seller"), to Cerulean Pharma Inc., a Delaware corporation (the "Buyer"). All capitalized words and terms used in this Bill of Sale and not defined herein shall have the respective meanings ascribed to them in the Platform Agreement dated June 23, 2009 between the Seller and the Buyer (the "Agreement") or the First Amendment to the Platform Agreement dated November 1, 2010 between the Seller and the Buyer (the "First Amendment").

WHEREAS, pursuant to the First Amendment, the Seller has agreed to sell, transfer, convey, assign and deliver to the Buyer certain of the additional assets of the Seller;

NOW, THEREFORE, in consideration of the mutual promises set forth in the First Amendment and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Seller hereby agrees as follows:

The Seller hereby sells, transfers, conveys, assigns and delivers to the Buyer, its successors and assigns, to have and to hold forever, all right, title and interest in, to and under all of the Additional Poly-CD-PEG.

The Seller hereby covenants and agrees that it will, at the request of the Buyer and without further consideration, execute and deliver, and will cause its employees to execute and deliver, such other instruments of sale, transfer, conveyance and assignment, and take such other action, as may reasonably be necessary to more effectively sell, transfer, convey, assign and deliver to, and vest in, the Buyer, its successors and assigns, good, clear, record and marketable title to the Additional Poly-CD-PEG hereby sold, transferred, conveyed, assigned and delivered, or intended so to be, and to put the Buyer in actual possession and operating control thereof, to assist the Buyer in exercising all rights with respect thereto and to carry out the purpose and intent of the First Amendment.

The Seller does hereby irrevocably constitute and appoint the Buyer, its successors and assigns, its true and lawful attorney, with full power of substitution, in its name or otherwise, and on behalf of the Seller, or for its own use, to claim, demand, collect and receive at any time and from time to time any and all of the Additional Poly-CD-PEG, and to prosecute the same at law or in equity and, upon discharge thereof, to complete, execute and deliver any and all necessary instruments of satisfaction and release.

The Seller, by its execution of this Bill of Sale, and the Buyer, by its acceptance of this Bill of Sale, each hereby acknowledges and agrees that neither the representations and warranties nor the rights, remedies or obligations of any party under the Agreement or the First Amendment shall be deemed to be enlarged, modified or altered in any way by this instrument.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the Seller and the Buyer have caused this Bill of Sale to be duly executed under seal as of and on the date first above written.

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone

Title: Chief Executive Officer

Attest:

/s/ illegible

ACCEPTED:

CERULEAN PHARMA INC.

By: /s/ Jean Silveri

Title: Senior Vice President, General Counsel

Exhibit 3

Access Letter

Calando Pharmaceuticals, Inc.  
201 S. Lake Avenue  
Pasadena, California 91101

November 1, 2010

Mr. George Rothermel  
Cambrex Charles City, Inc.  
1205 11<sup>th</sup> Street  
Charles City, Iowa

Dear Mr. Rothermel:

Reference is made to the Service Agreement between Cambrex North Brunswick, Inc. (“Cambrex”) and Calando Pharmaceuticals, Inc. (formerly Insert Therapeutics Inc.) (“Calando”), dated June 9, 2004, pursuant to which Cambrex has been supplying Calando with poly-beta-cyclodextrin-PEG (the “Agreement”). Reference is also made to our letter to you dated June 23, 2009 (a copy of which is attached).

Pursuant to an additional agreement between Calando and Cerulean, Cerulean has been granted title to an additional [\*\*] grams of poly-beta-cyclodextrin-PEG from Lot# [\*\*]) (the “Additional Poly-CD-PEG”).

Accordingly, we hereby grant to Cerulean, and authorize Cambrex to grant to Cerulean, full rights of access to the Additional Poly-CD-PEG and all materials, samples, raw data, summary data, files, reports, records (including, without limitation, manufacturing, testing and storage records) and other documentation maintained by Cambrex pertaining to the Additional Poly-CD-PEG. Such right of access shall in turn extend to the subcontractor of Cambrex, ABC Laboratories, Inc., and Cambrex is hereby directed to instruct such subcontractor to grant access to Cerulean.

If you have any questions regarding this letter, please do not hesitate to contact the undersigned.

Very truly yours,

/s/ Christopher Anzalone

Christopher Anzalone  
Chief Executive Officer



## AMENDMENT

This AMENDMENT (the "Amendment") is entered into as of February 10, 2012 (the "Amendment Effective Date"), by and between CALANDO PHARMACEUTICALS, INC., a Delaware corporation having its principal place of business at 225 South Lake Avenue, 3rd Floor, Pasadena, CA 91101 ("Calando"), and CERULEAN PHARMA INC., a Delaware corporation, having its principal place of business at 840 Memorial Drive, 5th Floor, Cambridge, Massachusetts 02139 ("Cerulean").

WHEREAS, the Parties are parties to that Platform Agreement, dated as of June 23, 2009, as amended by the First Amendment to Platform Agreement, dated as of November 1, 2010 (the agreement, as so amended, the "Platform Agreement");

WHEREAS, the Parties are parties to that IT-101 Agreement, dated as of June 23, 2009 (the "IT-101 Agreement" and, collectively with the Platform Agreement, the "Agreements");

WHEREAS, Calando wishes to assign certain Patent Rights to Cerulean and Cerulean wishes to accept such assignment;

WHEREAS, in accordance with Section 13.4 of each Agreement, the Parties desire to amend the Agreements as set forth herein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and with the specific intent to be bound hereby, the Parties hereby agree as follows:

1. Definitions. As used in this Amendment, the following terms, whether used in the singular or plural, shall have the following meanings:

1.1 "2012 Assigned IP" means (a) the 2012 Assigned Patent Rights; (b) all inventions disclosed in the 2012 Assigned Patent Rights (other than those disclosed as prior art of a Third Party); and (c) the right to recover for past infringement of the 2012 Assigned Patent Rights.

1.2 "2012 Assigned Patent Rights" means the Patent Rights set forth in Exhibit A and all Counterparts thereof.

1.3 Other Defined Terms. Capitalized terms used, but not defined, herein shall have the meaning ascribed to them in the Agreements, or, if not defined in each Agreement, in the Platform Agreement.

1.4 IT-101. For the sake of clarity, the product IT-101 has been renamed by Cerulean as CRLX101.

2. 2012 Patent Rights.

2.1 Assignment. Calando hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Cerulean, and Cerulean hereby purchases from Calando, all right, title and interest in and to the 2012 Assigned IP for an aggregate purchase price of [\*\*] (the "2012 Assignment Payment").

2.2 Incorporation into Assigned Patent Rights and Assigned IP. The Patent Rights listed in Exhibit A attached to this Amendment are hereby added to Exhibit A to each Agreement, the 2012 Assigned Patent Rights are included in the defined term "Assigned Patent Rights" in each Agreement for all purposes of each Agreement, the 2012 Assigned IP is included in the defined term "Assigned IP" in each Agreement for all purposes of each Agreement, and, following the Amendment Effective Date, the 2012 Assigned Patent Rights and any inventions disclosed therein shall not be considered Licensed Patent Rights or Licensed Know-How, as applicable, or Joint IP under the Agreements.

2.3 Calando Closing Conditions. As of the Amendment Effective Date, Calando shall have executed and delivered to Cerulean a patent assignment in the form attached hereto as Exhibit B (the "2012 Patent Assignment"), and such other instruments of conveyance as Cerulean may reasonably request in order to effect the sale, transfer, conveyance and assignment to Cerulean of valid ownership to the 2012 Assigned IP.

2.4 Cerulean Closing Conditions. As of the Amendment Effective Date, Cerulean shall have executed and delivered to Calando the 2012 Patent Assignment.

2.5 Further Assurances. At any time and from time to time hereafter, Calando, at the Cerulean's request and without further consideration, shall execute and deliver, or cause to be duly executed and delivered (including by its Affiliates and employees), such further instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents and instruments, as may be necessary or as Cerulean may reasonably request to carry out more effectively the provisions and purposes hereof, or to better assure and confirm the rights and remedies of the Parties under this Amendment, including to more effectively transfer, convey and assign to Cerulean, and to confirm Cerulean's title to, all of the 2012 Assigned IP, to put Cerulean in actual possession and control thereof, to assist Cerulean in exercising all rights with respect thereto and to carry out the purpose and intent of this Amendment.

2.6 Payment Coordination. Calando agrees and acknowledges that (a) following the Effective Date but prior to the Amendment Effective Date, Cerulean has incurred out-of-pocket expenses in connection with Cerulean's preparation, filing and prosecution of the 2012 Patent Rights pursuant to Section 7.2(d) of the Agreements, (b) pursuant to Section 7.2(d)(v) of the Agreements, Cerulean retains its right to fully credit such expenses against any other payments due by Cerulean under the Agreements, other than the 2012 Assignment Payment, and (c) the amount of such expenses total US \$[\*\*], which represent expenses totaling US \$[\*\*] from [\*\*] and expenses totaling US \$[\*\*] from [\*\*], as reflected in the email having the subject line "RE: What is the status of the Amendment?" sent from Jean M. Silveri, Senior Vice President, General Counsel of Cerulean, to Thomas A. Haag, Ph.D., Esq., of Fanelli Haag PLLC, as representative of Calando, on February 2, 2012, on or about 12:25 PM EST.

2.7 Warranties. Calando hereby warrants to Cerulean, as of the Amendment Effective Date, that:

(a) Immediately prior to the Amendment Effective Date and the assignments pursuant to Section 2.1 of this Amendment, (i) Calando was the sole, true and lawful owner of, and had good title to, the 2012 Assigned IP, free and clear of all Liens of any kind; (ii) Calando is not, and has not been, bound by any policies or agreements under which the 2012 Assigned IP has been or will be assigned to anyone other than Cerulean; (iii) Calando has the right to sell and transfer to Cerulean good, clear record and title to the 2012 Assigned IP, free and clear of all Liens of any kind; and (iv) upon execution and delivery to Cerulean of this Agreement and the instruments of conveyance referred to in Section 2.2(a) of this Amendment, Cerulean will become the sole, true and lawful owner of, and receive good title to, the 2012 Assigned IP, free and clear of all Liens.

(b) There is no agreement currently in effect pursuant to which Calando has granted any license, right or authority under any 2012 Assigned IP to any person, nor has Calando extended any covenant not to sue under the 2012 Assigned IP to any person.

(c) Calando and its Affiliates have neither sought, applied for nor received any support, funding, resources or assistance from any governmental authority in connection with the development, conception or reduction to practice of the 2012 Assigned IP.

(d) To Calando's Knowledge, (i) all assignments of the 2012 Assigned Patent Rights have been properly executed and recorded; and (ii) with respect to the 2012 Assigned IP, Calando and its Affiliates have not knowingly withheld or misinformed Cerulean with respect to any information relevant to the patentability of the 2012 Assigned IP. Calando has no Knowledge of any information that would preclude it from owning the 2012 Assigned IP (immediately prior to the assignment pursuant to Section 2.1 of this Amendment).

(e) There are no claims pending or, to the actual knowledge of the Calando Representatives, threatened by any person against Calando or any of its Affiliates alleging that Calando's ownership, sale, possession or use of, or disclosure, transfer or assignment to Cerulean of, the 2012 Assigned IP infringes upon or constitutes an unauthorized use of the intellectual property rights of any person, nor is there any known basis for any such claim.

(f) To Calando's Knowledge, no person (including any current or former employee or consultant of Calando) is infringing, violating or misappropriating any of the 2012 Assigned IP.

2.8 Coordination. For purposes of clarity, the Parties agree that clause (b) of Section 10.2 of the Platform Agreement shall be interpreted to include the representations, warranties and covenants made by Calando in this Amendment.

2.9 Survival. The following provisions of this Amendment shall survive the expiration or termination of the Agreements: Sections 2.1, 2.2, 2.3, 2.5, 2.6, 2.8, 2.9, 3 and 4.

3. Notices. For purposes of Section 13.5 of each Agreement, Cerulean's address is hereby amended to 840 Memorial Drive, 5th Floor, Cambridge, Massachusetts 02139, and Calando's address is hereby amended to 225 South Lake Avenue, 3rd Floor, Pasadena, CA 91101.

4. Effect on Agreement. Except as amended by this Amendment, each Agreement shall remain in full force and effect. After the Amendment Effective Date, every reference in each Agreement to the “Agreement” shall mean such Agreement as amended by this Amendment.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed as a sealed instrument in their names by their properly and duly authorized officer's representatives as of the date first above written.

CERULEAN PHARMA INC.

By: /s/ Jean M. Silveri

Name: Jean M. Silveri

Title: SVP, General Counsel

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone

Name: Christopher Anzalone

Title: Chief Executive Officer

Signature Page to Amendment

**Exhibit A**  
**2012 Assigned Patent Rights**

Title: TREATMENT OF CANCER

Application No.

Filing Date

Attorney Docket Number

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**Exhibit B**

**ASSIGNMENT OF PATENTS**

**CALANDO PHARMACEUTICALS, INC.**, a Delaware corporation, located at 225 South Lake Avenue, 3rd Floor, Pasadena, CA 91101 (“Assignor”), hereby irrevocably sells, transfers, conveys and assigns to **CERULEAN PHARMA INC.**, a Delaware corporation, located at 840 Memorial Drive, 5th Floor, Cambridge, Massachusetts 02139 USA (“Assignee”), the entire right, title and interest for the United States of America and its territorial possessions and all other countries and patent regions, including all rights of priority and rights to recover for past infringement, in the inventions disclosed in the patents and patent applications identified on Schedule A, together with the entire right, title, and interest in and to all patents and patent applications identified on Schedule A, all divisional, continuation, continuation-in-part, reissue, reexamination, extension or other applications based in whole or in part thereon or which claim priority or are related by terminal disclaimer thereto or therefrom, and all Letters Patent of the United States and all other countries and patent regions worldwide which may or shall be granted on said inventions, or any parts thereof (“Assignment”).

Assignor acknowledges having received consideration for this Assignment and agrees for said consideration to execute all deeds, separate written forms of assignment necessary to perfect the Assignment in specific countries and patent regions, or other instruments, and to do all acts reasonably necessary or proper to assist Assignee in securing the grant of Letters Patent in the United States and in all other countries and patent regions and to vest and confirm in Assignee, its successors and assigns, the legal title to all aforementioned inventions, patents and patent applications.

Assignor does hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and the equivalent authority in each other country and patent region in the world, to issue such Letters Patent as shall be granted upon said inventions or applications based thereon to Assignee, its successors and assigns.

*[Remainder of page left intentionally blank.]*

Witness my hand and seal this 8 day of February, 2012.

**CALANDO PHARMACEUTICALS, INC.**

/s/ Christopher Anzalone

Name: Christopher Anzalone

Title: Chief Executive Officer

**STATE OF CALIFORNIA**

County of Los Angeles

On this 8 day of February, 2012, before me, the undersigned notary public, personally appeared Christopher Richard Anzalone, proved to me through satisfactory evidence of identification, which was CA Drivers License [\*\*], to be the person whose name is signed the preceding document, and acknowledged to me that he signed it voluntarily for its stated purpose.

[affix seal]

Notary Public

My commission expires:



# CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Los Angeles

On Feb 8<sup>th</sup> 2012 before me, Angie Borgo Notary Public  
(Here insert name and title of the officer)

personally appeared Christopher Richard Anzalone

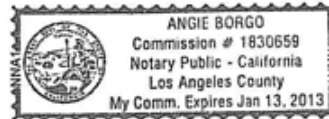
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Angie Borgo  
Signature of Notary Public

(Notary Seal)



## ADDITIONAL OPTIONAL INFORMATION

### DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages \_\_\_\_\_ Document Date \_\_\_\_\_

(Additional information)

### CAPACITY CLAIMED BY THE SIGNER

- Individual (s)  
 Corporate Officer

(Title)

- Partner(s)  
 Attorney-in-Fact  
 Trustee(s)  
 Other \_\_\_\_\_

### INSTRUCTIONS FOR COMPLETING THIS FORM

Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be properly completed and attached to that document. The only exception is if a document is to be recorded outside of California. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~ is /are ) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - ◊ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
  - ◊ Indicate title or type of attached document, number of pages and date.
  - ◊ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document

Assignee hereby accepts this Assignment.

Witness my hand and seal this 10th day of February, 2012.

**CERULEAN PHARMA INC.**

/s/ Jean M. Silveri

Name: Jean M. Sileri

Title: SVP, General Counsel

**COMMONWEALTH OF MASSACHUSETTS**

County of Middlesex

On this 10<sup>th</sup> day of February, 2012, before me, the undersigned notary public, personally appeared Jean M. Silveri, proved to me through satisfactory evidence of identification, which was Personally Known, to be the person whose name is signed the preceding document, and acknowledged to me that he signed it voluntarily for its stated purpose.

[affix seal]

Notary Public

My commission expires:

**Schedule A**  
**Assignment of Patents**

Title: TREATMENT OF CANCER

<u>Application No.</u>	<u>Films Date</u>	<u>Attorney Docket Number</u>
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Confidential Materials omitted and filed separately with the  
Securities and Exchange Commission. Double asterisks denote omissions.

August 6, 2013

Office of Technology Transfer  
California Institute of Technology  
1200 East California Boulevard (MC 210-85)  
Pasadena, California 91125

Cerulean Pharma Inc.  
840 Memorial Drive  
Cambridge, Massachusetts 02139

Ladies/Gentlemen:

Reference is made to the License Agreement between California Institute of Technology (“Caltech”) and Calando Pharmaceuticals, Inc. (formerly known as Insert Therapeutics, Inc.) (“Calando”) dated May 22, 2000, as amended on December 10, 2001, January 13, 2003, June 19, 2009 and August 5, 2013 and pursuant to the Side Letter (as defined below) (the “License Agreement”) and to the letter agreement between and among Caltech, Calando and Cerulean Pharma Inc. (“Cerulean”) dated June 11, 2009 (the “Side Letter”). Capitalized terms used herein and not otherwise defined herein shall have the meanings given such terms in the License Agreement.

On June 23, 2009, Calando and Cerulean entered into a Platform Agreement (as amended, the “Platform Agreement”) and an IT-101 Agreement (as amended, the “IT-101 Agreement” and, collectively with the Platform Agreement, the “Transaction Agreements”) pursuant to which Calando granted Cerulean a combination of an assignment of, and a world-wide license, including the right to grant further sublicenses, to, Calando’s interest in all patent rights and know-how pertaining to its cyclodextrin-based polymer drug delivery systems (the “Cyclodextrin System”) in order for Cerulean to (a) conduct research and development on the Cyclodextrin System, including making improvements thereto, for the purpose of making, using and selling Products for the Therapeutic Field and (b) research, develop, make, have made, use, market, offer to sell, distribute, sell and import Products for the Therapeutic Field.

Calando’s interest granted to Cerulean includes Calando’s interest in the Caltech Technology. Products (or “Licensed Products” as defined in the Platform Agreement) are defined to include pharmaceutical compositions containing therapeutic agents conjugated or complexed to the Cyclodextrin System and specifically include Calando’s clinical asset IT-101 (the “Licensed Product” as defined in the IT-101 Agreement). Products exclude pharmaceutical compositions containing cytolysin, tubulysin, certain second generation epothilones and nucleic acids as the therapeutic agents. Therapeutic Field (or the “Field” as defined in each of the Transaction Agreements) means the use of Products to treat and/or prevent disease in humans.

For purposes of clarity, a current list of the Licensed Patent Rights, which are solely owned by Caltech, is attached hereto as Exhibit A, a current list of the Improvements, which are jointly owned by Caltech and Calando, is attached hereto as Exhibit B, and a current list of the patent rights solely owned by Calando (now assigned to Cerulean) and included in the "Licensed Patent Rights" (as defined in each of the Transaction Agreements) is attached hereto as Exhibit C. Pursuant to the Transaction Agreements, Calando's exclusive interest in the Licensed Patent Rights and Improvements and Calando's non-exclusive interest in the Technology are (a) exclusively sublicensed to Cerulean in order to research and develop the Cyclodextrin System, and make improvements thereto, for the purpose of making, using and selling Products for the Therapeutic Field and (b) exclusively sublicensed to Cerulean for purposes of researching, developing, making, having made, using, marketing, offering to sell, distributing, selling and importing Products for the Therapeutic Field. Certain patent rights solely owned by Calando were assigned to Cerulean. In connection with the Transaction Agreements, Calando, Caltech and Cerulean entered into the Side Letter.

Calando wishes to terminate its rights and obligations under the License Agreement, and Calando, Caltech and Cerulean wish to clarify certain rights and obligations with respect to the License Agreement and the Side Letter and have agreed to certain modifications and/or clarifications pertaining to the License Agreement and the Side Letter, and Calando and Cerulean wish to clarify certain rights and obligations with respect to the Transaction Agreements and have agreed to certain modifications and/or clarifications pertaining to the Transaction Agreements, in each case as follows:

1. Notwithstanding Section 11.3 of the License Agreement, effective as of the date hereof, the License Agreement is deemed terminated in its entirety with respect to Calando's rights and obligations thereunder. For clarity, (a) such termination does not release Calando or Caltech from any liability which, as of the date hereof, has already accrued to the other party pursuant to the License Agreement or which is attributable to a period prior to such termination, nor preclude either such party from pursuing any rights and remedies it may have under the License Agreement or at law or in equity which accrued or are based upon any event occurring prior to such termination, (b) such termination does not release Calando from any liability which, as of the date hereof, has already accrued to Cerulean pursuant to any of the Transaction Agreements or the Side Letter with respect to the License Agreement or which is attributable to a period prior to such termination, nor preclude Cerulean from pursuing any rights and remedies it may have under the Transaction Agreements or the Side Letter or at law or in equity which accrued or are based upon any event occurring prior to such termination, (c) notwithstanding such termination, the Caltech Sole Patent Rights and Caltech Joint Patent Rights (each as defined in each of the Transaction Agreements) remain "Licensed Patent Rights" for purposes of each of the Transaction Agreements, (d) the Caltech Sole Patent Rights (as defined in each of the Transaction Agreements) include, without limitation, the patent rights set forth on Exhibit A attached hereto, (e) the Caltech Joint Patent Rights (as defined in each of the Transaction Agreements) include, without limitation, the patent rights set forth on Exhibit B attached hereto, and (f) the Licensed Patent Rights (as

defined in each of the Transaction Agreements) include, without limitation, the patent rights set forth on Exhibit C attached hereto. Caltech has invoiced Calando thirty thousand dollars (\$30,000.00) for outstanding minimum annual royalties due under Section 3.7 of the License Agreement, a copy of each of which is attached to the Fourth Amendment as Exhibit A ("Outstanding Royalties"). Calando shall pay such amounts on or before the later of (a) [\*\*] business days after the date on such invoices or (b) [\*\*], and in no event shall Cerulean be liable for any such amounts. Caltech acknowledges and expressly represents that upon Calando's payment of the Outstanding Royalties to Caltech in accordance with the foregoing, no additional annual minimum royalties shall be sought by Caltech under Section 3.7 of the License Agreement from Calando. Caltech also expressly agrees not to seek from Calando reimbursement under Article 10 of the License Agreement for any annuities, fees, expenses or patent costs of any kind incurred after August 6, 2013. Caltech represents to Cerulean that Calando does not owe any amounts to Caltech under Article 10 of the License Agreement for any annuities, fees, expenses or patent costs of any kind incurred on or before August 6, 2013. Effective as of the date hereof, Caltech hereby agrees to directly honor the exclusive license, including the right to grant further sublicenses, granted by Calando to Cerulean to practice the Licensed Patents Rights and the Improvements and to use the Technology in connection with Products in the Therapeutic Field, with the following additional understandings of Calando, Caltech and Cerulean.

2. Cerulean shall pay to Caltech, to the extent that any such amounts first become due after the date hereof, (a) the annual minimum royalties due Caltech pursuant to Section 3.7 of the License Agreement, and (b) the patent costs due Caltech pursuant to Sections 10.1 and 10.4 of the License Agreement; provided that if there are one or more other licensees of the Caltech Technology, the annual minimum royalties and patent costs due Caltech shall be shared equally among the licensees of the Caltech Technology. To the extent that Cerulean makes any such payments to Caltech, Cerulean shall be entitled to deduct the full amount of such payments from any milestones or royalties due Calando under the Transaction Agreements. Cerulean agrees to promptly provide Calando with a quarterly accounting of any such payments.

3. Calando shall promptly notify Caltech and Cerulean in writing once it has satisfied the Licensee Financial Obligations in full. Following the earlier of (i) receipt of such notice, or (ii) the first anniversary of the first commercial sale of a Licensed Product by Cerulean under the Transaction Agreements (the "Royalty Payment Trigger Date"), Cerulean shall pay (y) to Caltech the amounts that Calando would have been obligated to pay to Caltech under the terms of Section 3.13 of the License Agreement in respect of the net sales of Products by Cerulean following receipt of such notice and (z) to Calando [\*\*] percent ([\*\*]%) of the earned royalties due to Calando in accordance with the relevant Transaction Agreement in respect of the Net Sales of Products following receipt of such notice. Until the Royalty Payment Trigger Date, (a) Cerulean shall have no obligation to make such payments to Caltech, and Cerulean instead will pay Calando the full amount of the earned royalties due to Calando in accordance with the relevant Transaction Agreement in respect of the Net Sales of Products prior to receipt of such notice, and (b) Calando shall have the sole responsibility to pay to Caltech the amounts that Calando

would have been obligated to pay to Caltech under the terms of Section 3.13 of the License Agreement in respect of the net sales of Products by Cerulean prior to receipt of such notice. Following the occurrence of clause (ii) in the Royalty Payment Trigger Date, even if Calando has not notified Caltech and Cerulean in writing that Calando has satisfied the Licensee Financial Obligations in full, Cerulean shall pay the amounts described in clause (y) above directly to Caltech with no written notification from Calando required and shall only be obligated to pay Calando the amounts described in clause (z) above. For clarity, the terms of this Section 3 hereby amend any contradictory terms in Section 5, and any related provisions, of each of the Transaction Agreements. For the sake of clarity, nothing in this letter agreement requires Calando to discharge and/or satisfy the Licensee Financial Obligations as a prerequisite to receiving any payments due to Calando set forth in the Transaction Agreements.

4. The provisions of Section 10.4 of the License Agreement shall apply with respect to the prosecution and maintenance of the Licensed Patent Rights and Improvements by Caltech with the following additional understandings of Calando, Caltech and Cerulean.

(a) Any patent costs incurred by Caltech in connection with the prosecution and maintenance of the Licensed Patent Rights and Improvements prior to the date hereof, to the extent not paid by Calando, shall be paid by Cerulean upon written notice thereof from Caltech, and Cerulean shall be entitled to deduct the full amount of such payments from any milestones or royalties due Calando under the Transaction Agreements. Cerulean agrees to promptly provide Calando with a quarterly accounting of any such payments.

(b) Effective as of the date hereof, Caltech hereby agrees that Cerulean shall have the direct right to review and comment upon and approve any and all patent filings and all actions undertaken in the prosecution and maintenance of the Licensed Patent Rights and Improvements. Further, in the event that Caltech determines not to prepare, file, prosecute or maintain any patent application or patent within the Licensed Patent Rights or Improvements, Caltech shall promptly notify Cerulean, and thereupon, Cerulean shall have the right, at its own expense, to prepare, file, prosecute and maintain any such patent application or patent within the Licensed Patent Rights or Improvements.

5. The following terms and conditions will apply with respect to the enforcement of the Licensed Patent Rights and Improvements in connection with Products in the Therapeutic Field:

(a) Cerulean, acting directly or through an affiliate or sublicensee, shall have, for a period of [\*\*] days from the notice of an infringement of the Licensed Patent Rights and/or Improvements, the first right to institute an action or suit against the infringing third party in accordance with the following:

- (i) The action or suit shall be brought in the name of Cerulean and Cerulean shall bear the entire cost of such action or suit. Cerulean shall promptly provide

Caltech and, with respect to the Improvements, Calando, with copies of all litigation pleadings and other documents submitted to the court.

- (ii) With respect to any consideration received by Cerulean in connection with such action or suit, Cerulean shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Caltech and/or Calando). Thereafter, (x) to the extent that the remaining recovery represents lost profits, such remaining recovery shall be retained by Cerulean, with (A) Calando entitled to receive an amount equal to [\*\*] percent ([\*\*]%) of the royalties that would have been due Calando under the relevant Transaction Agreement on sales of Products lost by Cerulean as a result of the infringement and (B) Caltech entitled to receive an amount equal to [\*\*] percent ([\*\*]%) of the royalties that would have been due Calando on sales of Products lost by Cerulean as a result of the infringement and (y) to the extent that the remaining recovery represents punitive or other damages, Cerulean shall be entitled to [\*\*]% of such remaining recovery and Caltech shall be entitled to [\*\*]% of such remaining recovery. For clarity, the terms of this clause (ii) hereby amend any contradictory terms in Section 7.3(d)(i), and any related provisions, of each of the Transaction Agreements with respect to the Licensed Patent Rights, Improvements and Technology. For the sake of clarity, there shall be no double recovery by Calando or Caltech pursuant to Section 3 of this letter agreement and this Section 5(a)(ii).
- (iii) If it shall be necessary for Cerulean to join Caltech and/or Calando as a party to an action or suit because Caltech and/or Calando constitutes a legally indispensable party, Cerulean shall have the right to so join Caltech and/or Calando, provided that Cerulean indemnifies Caltech and/or Calando for all outside costs and expenses thereby incurred by Caltech and/or Calando.

(b) If within [\*\*] days after notification of an infringement of the Licensed Patent Rights or Improvements pursuant to clause (a) above, Cerulean has not been successful in persuading the alleged infringer to desist and is not diligently pursuing an infringement action or suit, or has notified Caltech and, with respect to the Improvements, Calando of its intent not to bring action or suit against the alleged infringer, then Caltech may institute an action or suit against such third party, and, with respect to the Improvements, if Caltech has not, within [\*\*] months thereafter, either (x) caused the infringement to terminate or (y) initiated a legal action against such third party, Calando may, upon notice to Caltech, initiate an action against such third party, subject to the following:

- (i) Prior to taking any action, Caltech and Calando shall confer with Cerulean and give due consideration to Cerulean's reasons for not pursuing such alleged infringer.
- (ii) The action or suit shall be brought in the name of Caltech and, if applicable, Calando, and Caltech and/or Calando, as applicable, shall bear the entire cost of such action or suit. Caltech and, if applicable, Calando shall promptly



provide Cerulean with copies of all litigation pleadings and other documents submitted to the court.

- (iii) With respect to any consideration received by Caltech and, if applicable, Calando in connection with such action or suit, Caltech and, if applicable, Calando shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Cerulean). In the case where the Product has not been licensed by Cerulean to a third party, [\*\*]% of the remaining recovery shall go the party bringing the action and [\*\*]% of the remaining recovery shall go to Cerulean. In the case where the Product has been licensed by Cerulean to a third party, the remaining recovery shall be split equally between the party bringing the action or suit and Cerulean and/or the licensee of Cerulean.
- (iv) If it shall be necessary for Caltech and, if applicable, Calando to join Cerulean as a party to an action or suit because Cerulean constitutes a legally indispensable party, Caltech and, if applicable, Calando shall have the right to so join Cerulean, provided that Caltech and, if applicable, Calando indemnifies Cerulean for all outside costs and expenses thereby incurred by Cerulean.
- (v) For clarity, the terms of this clause (b) hereby amend any contradictory terms in Section 7.3(d)(ii), and any related provisions, of each of the Transaction Agreements with respect to the Licensed Patent Rights and Improvements.

(c) In the event that a declaratory judgment action alleging invalidity, unenforceability or non-infringement of the Licensed Patent Rights or Improvements is brought against Cerulean, Caltech and/or Calando, Cerulean, at its option, shall have the right, within [\*\*] days of the commencement of such action, to take over the sole defense of the action at its own expense and with the provisions of clause (a)(iii) above applying. If Cerulean does not exercise this right (i) with respect to the Licensed Patent Rights, Caltech may take over the defense of the action, at Caltech's sole expense; or (ii) with respect to the Improvements, Calando may take over the defense of the action, at Calando's sole expense.

(d) If any action or suit is brought involving the enforcement or defense of the Licensed Patent Rights or Improvements, the other parties agree, at the request and expense of the party initiating such action or suit, to reasonably cooperate and to make available relevant records, papers, information, samples, specimens and the like.

(e) No settlement or consent judgment or other voluntary final disposition of an enforcement or defense action or suit (i) initiated by Cerulean or Caltech with respect to the Licensed Patent Rights may be entered into without the consent of Caltech or Cerulean, respectively, which consent will not be unreasonably withheld, or (ii) initiated by a party with respect to the Improvements may be entered into without the consent of the other parties, which consent will not be unreasonably withheld; provided that, in any

case Cerulean shall, in its sole discretion, have the right to determine whether to grant and/or on what basis to grant a sublicense of the Licensed Patent Rights or Improvements to an infringer of the Licensed Patent Rights or Improvements for future use of the Licensed Patent Rights or Improvements in connection with Products in the Therapeutic Field.

6. The letter sent by Calando to Caltech dated June 4, 2013 purporting to terminate Calando's rights and obligations under the License Agreement is and has been officially rescinded and is, and has been, of no force and effect.

7. Cerulean shall have the right to terminate its rights and obligations under the Transaction Agreements and under this letter agreement (and, for clarity, the Side Letter) with respect to any Technology, Licensed Patent Right or Improvement either in its entirety or as to any jurisdiction or as to any part of the Technology, Licensed Patent Rights or Improvements upon sixty (60) days written notice to Caltech and Calando.

8. As between Cerulean and Calando, any information with respect to any Licensed Patent Right, Improvement or Technology shall be considered Confidential Information (as defined in each of the Transaction Agreements) of Cerulean, with Cerulean being considered the Disclosing Party (as defined in each of the Transaction Agreements) and Calando being considered the Receiving Party (as defined in each of the Transaction Agreements), and Calando may not rely on the provisions of Sections 8.2(a) or 8.2(b) of either of the Transaction Agreements with respect to such information.

9. Section 12.2(a) of each of the Transaction Agreements is hereby amended to read as follows: "If the Breaching Party fails to cure such breach within [\*\*] days after the Breaching Party's receipt of such notice, then the Non-Breaching Party may seek money damages from the Breaching Party with respect to such breach, which shall be the Non-Breaching Party's sole remedy, except as provided in Sections 5.7, 8.5, 10, 12.2(b) or 12.2(c)."

10. Each party shall have the right to directly enforce the terms and conditions of this letter agreement against either or both of the other parties, as appropriate. Further, the terms and conditions of this letter agreement shall be assignable by Cerulean, and shall apply, to a person who acquires all or substantially all of the business of Cerulean by merger, sale of assets or otherwise. A breach of this letter agreement by Calando shall be deemed a breach of each of the Transaction Agreements.

11. Except as amended by this letter agreement, the Side Letter shall remain in full force and effect. After the date hereof, every reference in the Transaction Agreements to the "Caltech Side Letter" shall mean the Caltech Side Letter as amended by this letter agreement. Except as amended by this letter agreement (whether such amendment is explicit or implicit), the Transaction Agreements shall remain in full force and effect. After the date hereof, every reference in each of the Transaction Agreements to the "Agreement" or to the other Transaction Agreement shall mean such Transaction Agreement as amended by this letter agreement.



In order to evidence your acceptance of the foregoing, please countersign this letter where indicated below.

Very truly yours,

/s/ Christopher Anzalone  
Christopher Anzalone,  
President

California Institute of Technology (which, for clarity, is not a party to the Transaction Agreements)

By: /s/ illegible

Cerulean Pharma Inc.

By: /s/ Jean M. Silveri  
Jean M. Silveri, Esq., Senior Vice President, General  
Counsel

**EXHIBIT A**

Licensed Patent Rights

<u>Client Matter Number</u>	<u>Sub Case</u>	<u>Application Number</u>	<u>Status</u>	<u>Filing Date</u>	<u>Patent Number</u>	<u>Issue Date</u>	<u>Application Title</u>	<u>Inventors</u>	<u>Assignee</u>
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Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of seven pages were omitted. [\*\*]

**Exhibit B**  
**Improvements**

<u>Client Matter Number</u>	<u>Sub Case</u>	<u>Application Number</u>	<u>Status</u>	<u>Filing Date</u>	<u>Patent Number</u>	<u>Issue Date</u>	<u>Application Title</u>	<u>Inventors</u>	<u>Assignee</u>
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Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of five pages were omitted. [\*\*]

**Exhibit C**

Patent rights solely owned by Calando (now assigned to Cerulean)

<u>Client Matter Number</u>	<u>Sub Case</u>	<u>Application Number</u>	<u>Status</u>	<u>Filing Date</u>	<u>Patent Number</u>	<u>Issue Date</u>	<u>Application Title</u>	<u>Inventors</u>	<u>Assignee</u>
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Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of thirteen pages were omitted. [\*\*]

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**SECOND SERIES D CONVERTIBLE PREFERRED STOCK  
PURCHASE AGREEMENT**

**CERULEAN PHARMA INC.**

November 30, 2012

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## EXHIBITS AND SCHEDULES

<u>Exhibit A</u>	Form of Restated Certificate of Incorporation
<u>Exhibit B</u>	Forms of Proprietary Information and Inventions Agreement
<u>Exhibit C</u>	Form of Opinion of Counsel
<u>Exhibit D</u>	Form of Amendment No. 1 to Fifth Amended and Restated Voting Agreement
<u>Schedule 1</u>	Schedule of Purchasers
<u>Schedule 2</u>	Schedule of Holders
<u>Schedule 3</u>	Disclosure Schedule and List of Stockholders

**SECOND SERIES D CONVERTIBLE  
PREFERRED STOCK PURCHASE AGREEMENT**

This Second Series D Convertible Preferred Stock Purchase Agreement dated as of November 30, 2012 (this "Agreement"), is made by and among Cerulean Pharma Inc., a Delaware corporation (the "Company"), the persons and entities listed on Schedule 1 hereto (individually, a "Purchaser" and collectively, the "Purchasers") and the persons and entities listed on Schedule 2 hereto (individually, a "Holder" and collectively, the "Holders").

In consideration of the mutual promises and covenants contained in this Agreement, the parties hereby agree as follows:

**1. Purchase of Series D Convertible Preferred Stock.**

1.1 Sale and Issuance of Series D Convertible Preferred Stock.

(a) Prior to the Closing (as defined below), the Company shall adopt and file with the Secretary of State of Delaware an Amended and Restated Certificate of Incorporation, as amended, in the form of Exhibit A hereto (the "Restated Certificate"), which shall set forth the terms of the Series D Convertible Preferred Stock to be purchased under this Agreement (the "Series D Stock").

(b) Subject to the terms and conditions of this Agreement, at the Closing, the Company agrees to sell and issue, and the Purchasers agree to purchase, severally and not jointly, at a purchase price of \$0.83 per share (the "Purchase Price"), the number of shares of Series D Stock set forth opposite their respective names on Schedule 1 (the "Shares").

1.2 Closing; Deliveries.

(a) The purchase and sale of the Shares (the "Closing") shall take place simultaneously with the execution of this Agreement at the offices of WilmerHale LLP, 60 State Street, Boston, Massachusetts, 02109, on the date hereof, or at such other time and place as are mutually agreeable to the Company and the Purchasers acquiring in the aggregate at least a majority of the Shares.

(b) Deliveries. At the Closing, the Company shall deliver to each Purchaser a certificate representing the number of Shares that such Purchaser is purchasing in the Closing, registered in the name of such Purchaser, against delivery by such Purchaser of payment of the aggregate purchase price for such Shares by wire transfer or check.

1.3 Use of Proceeds. In accordance with the directions of the Company's Board of Directors (the "Board"), the Company will use the proceeds from the sale of the Shares for general working capital purposes.

**2. Representations of the Company.** The Company hereby represents and warrants to each Purchaser that, except as set forth in the Disclosure Schedule furnished to the Purchasers prior to execution of this Agreement and attached as Schedule 3 to this Agreement, the following representations and warranties are true and complete as of the date of this Agreement, except

with respect to any representation or warranty that is expressly made as of a different date, in which case such representation or warranty shall be true and correct as of such date. The Disclosure Schedule shall be arranged in sections corresponding to the numbered and lettered sections and subsections contained in this Section 2.

2.1 Organization; Good Standing and Qualification. The Company is a corporation duly organized, validly existing, and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to own its property, to carry on its business as now conducted and as proposed to be conducted and to execute, deliver and perform this Agreement, the Voting Agreement (as defined below) and the Right of First Refusal and Co-Sale Agreement (as defined below) (collectively, the "Financing Agreements") and the consummation of the transactions contemplated hereby and thereby. The Company is duly qualified to transact business and is in good standing in the Commonwealth of Massachusetts and in each other foreign jurisdiction in which the failure to so qualify would individually or in the aggregate, be reasonably likely to have a material adverse effect on the Company or its assets, liabilities, financial condition or operations.

2.2 Authorization. The Financing Agreements constitute valid and legally binding obligations of the Company, enforceable in accordance with their terms, subject to and limited by (i) applicable bankruptcy, insolvency, reorganization, moratorium, and other laws generally applicable to creditors' rights, (ii) judicial discretion in the availability of equitable relief, and (iii) federal and state securities laws to the extent applicable to the indemnification provision set forth in Section 8. The execution, delivery and performance of the Financing Agreements and the performance of all obligations of the Company thereunder have been, or will be prior to the Closing, duly authorized by all necessary corporate or stockholder approval or other action of the Company. Prior to the Closing, the Company shall take all necessary corporate action to authorize the issuance, sale and delivery of the Series D Stock in accordance with this Agreement and to reserve for issuance and delivery the shares of Common Stock (as defined below) issuable upon conversion of such shares of Series D Stock.

### 2.3 Valid Issuance of Stock.

(a) The Series D Stock, when issued, sold, and delivered in accordance with this Agreement for the consideration set forth on Schedule 1, will be duly and validly issued, fully paid, and nonassessable and, based in part upon the representations of the Purchasers in this Agreement, will (i) be issued in compliance with all applicable federal and state securities laws, subject to the securities law filings described in Section 2.4 below and (ii) be free and clear of all mortgages, liens, charges, security interests, adverse claims, pledges, encumbrances and demands whatsoever (other than those created by the Purchasers); provided, however, that the Series D Stock may be subject to restrictions on transfer imposed or created under the Financing Agreements or by applicable law. The Common Stock issuable upon conversion of the Series D Stock has been duly and validly authorized and reserved for issuance and, upon issuance in accordance with the terms of the Restated Certificate, shall (i) be duly and validly issued, fully paid, and nonassessable, (ii) be issued in compliance with all currently applicable federal and state securities laws, subject to the securities law filings described in Section 2.4 below.

(b) The outstanding shares of Common Stock, Seed Stock (as defined below), Series A Stock (as defined below), Series B Stock (as defined below), Series B-1 Stock (as defined below), Series C Stock (as defined below) and Series D Stock of the Company are all duly and validly authorized and issued, fully paid, and nonassessable, and were issued in compliance with all applicable federal and state securities laws.

2.4 Governmental Consents. The Company is not required to obtain the consent, approval, order, or authorization of, or complete any registration, qualification, designation, declaration, or filing with, any federal, state, local, or provincial governmental authority in connection with the execution, delivery and performance of the Financing Agreements and the consummation of the transactions contemplated thereby, except for certain federal and state securities law filings that are permitted or required to be filed following the Closing.

2.5 Capitalization. As of the Closing, the authorized capital stock of the Company shall consist of the following:

(a) Preferred Stock. 88,894,772 shares of preferred stock, \$0.01 par value per share (“Preferred Stock”), of which (i) 2,500,000 shares have been designated Seed Convertible Preferred Stock (“Seed Stock”), all of which are issued and outstanding, (ii) 9,307,692 shares have been designated Series A Convertible Preferred Stock (“Series A Stock”), all of which are issued and outstanding, (iii) 4,077,500 shares have been designated Series B Convertible Preferred Stock (“Series B Stock”), 4,062,500 of which are issued and outstanding, (iv) 5,000,000 shares have been designated Series B-1 Convertible Preferred Stock, all of which are issued and outstanding, (v) 33,310,787 shares have been designated Series C Convertible Preferred Stock (“Series C Stock”), 32,432,417 of which are issued and outstanding and (vi) 34,698,793 shares have been designated Series D Convertible Preferred Stock (“Series D Stock”), 18,072,287 of which are issued and outstanding and 15,662,650 of which are being sold pursuant to this Agreement on the date hereof. The rights, privileges and preferences of the Seed Stock, the Series A Stock, the Series B Stock, the Series B-1 Stock, the Series C Stock and the Series D Stock are as stated in the Restated Certificate.

(b) Common Stock. 132,000,000 shares of common stock, \$0.0001 par value per share (“Common Stock”), of which (i) 8,840,958 shares are issued and outstanding, (ii) 2,631,575 shares are reserved for issuance upon conversion of the Seed Stock, (iii) 12,474,262 shares are reserved for issuance upon conversion of the Series A Stock, (iv) 6,684,409 shares are reserved for issuance upon conversion of the Series B Stock, (v) 13,513,501 shares are reserved for issuance upon conversion of the Series B-1 Stock, (vi) 33,310,787 shares are reserved for issuance upon conversion of the Series C Stock, (v) 34,698,793 shares are reserved for issuance upon conversion of the Series D Stock and (v) a total of 15,272,603 shares are reserved for future issuance to employees and consultants in connection with services to the Company.

(c) Rights To Acquire Stock. Except as set forth on Schedule 2.5(c) and in this Agreement, there are no outstanding options, warrants, rights (including conversion, preemptive rights or rights of first refusal), or agreements for the purchase or acquisition from the Company of any shares of its capital stock. Except as set forth on Schedule 2.5(c), no officer or director of the Company has obligated the Company to issue any equity incentives to any officer, employee, director or consultant of the Company.

(d) Securityholder Lists and Agreements. Set forth on Schedule 2.5(d)(i) is a true and complete list of all securityholders of the Company, showing the number of shares of Common Stock or other securities of the Company held by each such securityholder as of the date of this Agreement. Except as disclosed on Schedule 2.5(d)(ii) and except as set forth in the Financing Agreements and the Restated Certificate, there are no agreements, written or oral, between the Company and any holder of its capital stock, or, to the best knowledge of the Company, between or among any holders of its capital stock, relating to the acquisition (including the redemption by the Company), disposition, or voting of the capital stock of the Company. Except as set forth on Schedule 2.5(d)(iii), the shares of Series D Stock sold hereunder and the shares of Common Stock issuable upon conversion of the shares of Series D Stock sold hereunder are not subject to any preemptive rights or rights of first refusal.

2.6 Subsidiaries. The Company does not own or control, directly or indirectly, any interest in any other corporation, association, or other business entity. The Company is not a participant in any joint venture, partnership or similar arrangement.

2.7 Environmental and Safety Laws. The Company has materially complied with, and, to the best of its knowledge, the operation of its business and any real property the Company owns or has owned, leases or has leased or otherwise occupies or uses or has occupied or used (the "Premises") is not in violation of, any applicable statute, law, or regulation relating to the environment or occupational health and safety, and to the best of its knowledge, no material expenditures are or will be required in order to comply with any such existing statute, law, or regulation. The Company has not received any citation, directive, letter or other communication, written or oral, or any notice of any proceeding, claim or lawsuit, from any person arising out of the ownership or occupation of the Premises, or the conduct of its operations, and the Company has no knowledge of any basis therefor. To the Company's knowledge, there has been no release or threatened release of any pollutant, contaminant or toxic or hazardous material, substance or waste, or petroleum or any fraction thereof (each a "Hazardous Substance") on, upon, into or from any site currently or heretofore owned, leased or otherwise used by the Company. There have been no Hazardous Substances generated by the Company that, to the Company's knowledge, have been disposed of or come to rest at any site that has been included in any published U.S. federal, state or local "superfund" site list or any other similar list of hazardous or toxic waste sites published by any governmental authority in the United States.

2.8 Litigation. There is no claim, action, suit, proceeding, or investigation currently pending or, to the best knowledge of the Company, currently threatened against the Company or any of its officers or directors (other than, in the case of officers or directors, with respect to a personal matter or any other matter that would not be reasonably expected to result in a material adverse effect on the Company). There is no action, suit, proceeding, or investigation by the Company currently pending or that the Company intends to initiate. The foregoing includes, without limitation, actions, suits, proceedings or investigations pending or threatened (or any basis therefor known to the Company) involving the prior employment of any of the Company's employees, their use in connection with their respective businesses of any information or techniques allegedly proprietary to any of their former employers, or their obligations under any agreements with prior employers. The Company is not a party or, to its knowledge, subject to

the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality.

2.9 Intellectual Property. Except as set forth on Schedule 2.9:

(a) The Company has sufficient rights in or ownership of all licenses, patents, patent rights, trademarks, trademark rights, service marks, service mark rights, trade names, trade name rights, copyrights and all registrations and applications for registration of any of the foregoing, and all trade secrets, information, proprietary rights and processes ("Intellectual Property") necessary for its business as now being conducted and as currently proposed to be conducted without, to its knowledge, any material conflict with or infringement of the intellectual property rights of others. Schedule 2.9(a) lists all patents and patent applications owned or licensed by the Company.

(b) There are no outstanding options, licenses, or agreements of any kind relating to the foregoing, nor is the Company bound by or a party to any options, licenses, or agreements of any kind with respect to the patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights, or processes of any other person or entity.

(c) The Company has not received any communications alleging that the Company has infringed, violated or misappropriated or, by conducting its business as proposed, would infringe, violate or misappropriate any of the patents, trademarks, service marks, trade names, copyrights, trade secrets, or other proprietary rights of any other person or entity.

(d) The Company has no knowledge that any of its officers, employees or consultants is obligated under any contract (including licenses, covenants, or commitments of any nature) or other agreement, or is subject to any judgment, decree, or order of any court or administrative agency, that would interfere with his or her ability to use his or her best efforts to perform his or her intended duties for the Company or that would conflict with the business of the Company as currently conducted or as proposed to be conducted.

(e) To the best knowledge of the Company, the execution and delivery of the Financing Agreements, the conduct of the intended duties of officers, employees and consultants of the Company, and the conduct of the business of the Company as currently conducted and as proposed to be conducted will not conflict with or result in a breach of the terms, conditions, or provisions of, or constitute a default under, any contract, covenant, or instrument which legally binds any of such officers, employees or consultants.

(f) The Company does not believe it is or will be necessary to utilize any inventions made by its current officers, employees or consultants prior to their association with the Company.

2.10 Compliance with Other Instruments. The Company is not in violation or default of (i) any provision of its Certificate of Incorporation, as amended, or By-Laws, (ii) any legally binding instrument, judgment, order, writ, decree, or contract, other than any such violations or default that do not and would not, individually or in the aggregate, be reasonably likely to have a material adverse effect on the Company or its assets, liabilities, financial condition or operations,



or (iii) any material provision of federal or state statute, rule, or regulation applicable to the Company. The execution, delivery, and performance of the Financing Agreements and the consummation of the transactions contemplated therein will not (a) conflict with, nor result in any violation of or default under any such instrument, judgment, order, writ, decree, contract, or provision or (b) give rise to any event that results in the creation of any lien, charge, or encumbrance upon any assets of the Company or the suspension, revocation, impairment, forfeiture, or nonrenewal of any material permit, license, authorization, or approval that applies to the Company, its business or operations, or any of its assets or properties. The Company has not performed any act or failed to perform any act, the occurrence of which would result in the Company's loss of any right granted under any license or other agreement set forth in the Disclosure Schedule, except where the loss of such right would not, individually or in the aggregate, be reasonably likely to have a material adverse effect on the Company or its assets, liabilities, financial condition, prospects or operations.

## 2.11 Contracts and Commitments.

(a) Schedule 2.11(a) includes a complete list of all agreements, contracts, obligations, or commitments, of any nature to which the Company is a party or by which it or any of its properties are bound, other than the Financing Agreements, that are material to the conduct and operation of its business and properties, including any employment contracts; stock redemption or purchase agreements; loan agreements, security agreements and guaranties; licenses, distributor or sales representative agreements; agreements with officers, directors, employees or shareholders of the Company or persons or organizations related to or affiliated with any such persons; leases; agreements relating to product development; or bonus, pension, profit-sharing, severance, retirement or stock option plans, in each case involving a contractual commitment by the Company in excess of \$25,000 ("Material Contracts"). Each such Material Contract constitutes a valid and legally binding obligation of the Company, enforceable in accordance with its respective terms, and is in full force and effect. The Company is not in material default under any Material Contract and there is no state of facts which upon notice or lapse of time or both would constitute such a default. To the best knowledge of the Company, no other party to a Material Contract is in default thereunder and to the best knowledge of the Company, there is no state of facts which upon notice or lapse of time or both would constitute such a default. As of the date of the Closing, the Company does not intend to cancel, withdraw, modify or amend any Material Contract, nor has it been notified that any other party to any Material Contract intends to cancel, withdraw, modify or amend any such Material Contract. The performance of each Material Contract by the Company will not violate any other agreement, judgment, order, writ or decree binding upon the Company or any material provision of any federal or state statute, rule or regulation applicable to the Company. To the best of the Company's knowledge, the performance of each Material Contract by each other party thereto will not violate any other agreement, judgment, order, writ or decree binding upon such other party or any material provision of any federal or state statute, rule or regulation applicable to such other party. The Company is not a party to any contract or arrangement that is, individually or in the aggregate, reasonably likely to have a material adverse effect on the Company or its assets, liabilities, financial condition or operations.

(b) Except as set forth on Schedule 2.11(b), to the best knowledge of the Company, no employee of the Company is in default under any outstanding contract, obligation,

or commitment of such employee with any prior employer. Neither the Company nor, to the best knowledge of the Company, any of its employees, officers, directors or consultants is a party to any contract or agreement, oral or written, that prohibits them from freely competing or engaging in the business of the Company.

(c) True and complete copies of each Material Contract have been provided to the Purchasers and counsel to the Company.

(d) Except as set forth on Schedule 2.11(d) and except as required pursuant to this Agreement, the Company is presently not under any obligation, and has not granted any rights, to register under the Securities Act of 1933, as amended (the "Act"), any of the Company's presently outstanding securities or any of its securities that may hereafter be issued. To the Company's knowledge, except as contemplated in the Voting Agreement and except as set forth on Schedule 2.11(d), no stockholder of the Company has entered into any agreement with respect to the voting of equity securities of the Company.

2.12 Related-Party Transactions. No employee, officer, director or consultant of the Company or member of his or her immediate family is indebted to the Company, nor is the Company indebted (or committed to make loans or extend or guarantee credit) to any of them, other than in the ordinary course. To the best knowledge of the Company, except as set forth on Schedule 2.12, none of such persons has any direct or indirect ownership interest in any firm or corporation with which the Company is affiliated or with which the Company has a business relationship, or any firm or corporation that competes with the Company, except that employees, officers, directors or consultants of the Company and members of their immediate families may own stock in publicly traded companies that may compete with the Company where such interest does not exceed one percent (1%) of the outstanding voting stock of any such publicly traded company. Except as set forth on Schedule 2.12, no employee, officer or director of the Company or member of the immediate family of any officer or director of the Company is directly or indirectly interested in any Material Contract. Schedule 2.12 sets forth, as of the Closing, the cash, equity and other compensation paid or promised to be paid to each officer of the Company. No employee of the Company has been granted the right to continued employment by the Company or to any material compensation following termination of employment with the Company.

### 2.13 Permits.

(a) The Company has obtained all franchises, permits, licenses, and any similar authority necessary for the conduct of its current operations, the lack of which could materially and adversely affect the business, properties, or financial condition of the Company. The Company is not in violation in any material respect under any of such franchises, permits, licenses, or other similar authority, and to the Company's knowledge, no event has occurred that allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other impairment of the rights of the holder thereof.

(b) The Company has operated and currently is in compliance in all material respects with all applicable rules, regulations and policies of the Food and Drug Administration (the "FDA") of the U.S. Department of Health and Human Services, and the Company has not

received any notices or other correspondence from the FDA or any other governmental agency requiring the termination, suspension or modification of any clinical studies or tests.

2.14 Information Supplied to Purchasers. Neither this Agreement, the Schedules and Exhibits hereto, the Voting Agreement, the Right of First Refusal and Co-Sale Agreement nor any certificate, projection or statement nor any written information provided to the Purchasers by or on behalf of the Company, when read together, contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained herein or therein not misleading. There is no material fact relating to the business, prospects, operations, affairs, or conditions of the Company which adversely affects the same which has not been set forth in this Agreement or in the Schedules or Exhibits. The Company has fully provided each Purchaser with all the information that such Purchaser has requested for deciding whether to purchase the shares of Series D Stock being sold pursuant to this Agreement.

2.15 Corporate Documents. Except for amendments necessary to satisfy representations and warranties or conditions contained herein (the form of which amendments has been approved by the Purchasers), the Certificate of Incorporation and By-Laws of the Company are in the form previously provided to the Purchasers.

2.16 Title to Property and Assets. Except as set forth on Schedule 2.16, the Company has good title to, or a valid leasehold interest in, all of its material property and assets and none of such property or assets is subject to any mortgages, liens, loans or encumbrances, except (i) for statutory liens for the payment of current taxes that are not yet delinquent and (ii) such encumbrances and liens which arise in the ordinary course of business and which, either singly or in the aggregate, do not materially impair the Company's ownership or use of such property or assets.

2.17 Financial Statements. The Company has delivered to the Purchasers (a) the audited balance sheet of the Company at December 31, 2011 and the related audited statements of operations and cash flows for the fiscal year then ended and (b) the unaudited balance sheet of the Company at and for the nine-month period ended September 30, 2012 (together, the "Financial Statements"). The Financial Statements are correct and complete in all material respects as of the dates indicated therein, have been prepared in accordance with generally accepted accounting principles applied on a consistent basis throughout the period indicated therein, and fairly and accurately present the financial position of the Company as of the dates indicated therein, except that the unaudited Financial Statements may not contain all footnotes required by generally accepted accounting principles ("GAAP"). The Financial Statements have been prepared from the books and records of the Company, which books and records accurately and fairly reflect the financial position of the Company.

2.18 Undisclosed Liabilities. Except as set forth on Schedule 2.18, the Company has no liabilities (fixed, accrued, contingent or otherwise, whether due or to become due, including any liabilities for taxes due) that are not fully reflected on the Financial Statements, except (a) liabilities incurred in the ordinary course of business since September 30, 2012 (the "Balance Sheet Date") and (b) obligations under contracts and commitments occurred in the ordinary course of business and not required under GAAP to be reflected in the Financial Statements, in the case of clauses (a) or (b), none of which, individually or in the aggregate, exceeds \$100,000

in value or has been or is materially adverse to the condition, financial or otherwise, or prospects of the Company or its assets, properties or business.

2.19 Absence of Certain Developments. Since the Balance Sheet Date and except as contemplated by this Agreement and except as set forth on Schedule 2.19, there has been (i) no material adverse change in the condition (financial or otherwise) of the Company or in the assets, liabilities, properties, or business of the Company, (ii) no declaration, setting aside, or payment of any dividend or other distribution with respect to, or any direct or indirect redemption or acquisition of, any of the capital stock of the Company and no undertaking by the Company to do any of the foregoing, (iii) no waiver of any valuable right of the Company or cancellation of any debt or claim held by the Company, (iv) no loan by the Company to any officer, director, employee, or stockholder of the Company, or any agreement or commitment therefor, (v) no increase, direct or indirect, or modification in the compensation or benefits paid or payable to any officer, director, employee, or agent of the Company, (vi) no material loss, destruction, or damage to any property of the Company whether or not insured, (vii) no labor disputes involving the Company and no material change in the personnel of the Company or the terms and conditions of their employment, (viii) no acquisition or disposition of any material assets (or any contract or arrangement therefor), (ix) no material change, except in the ordinary course of business, in the contingent obligations of the Company by way of guaranty, endorsement, indemnity, warranty or otherwise, (x) no debt, obligation, or liability incurred, assumed or guaranteed by the Company, except for immaterial amounts and for current liabilities incurred in the ordinary course of business, (xi) no sale, assignment or exclusive license or transfer of any patents, trademarks, copyrights, trade secrets or other intangible assets of the Company, (xii) no termination or change in any Material Contract to which the Company is a party or by which it is bound which materially and adversely affects the business, assets, liabilities, financial condition, prospects or operations of the Company, (xiii) no event or condition of any character that, to the Company's knowledge, either individually or cumulatively, has materially and adversely affected the business, assets, liabilities or financial condition, prospects or operations of the Company, (xiv) no change in the accounting methods or practices followed by the Company, and (xv) no arrangement or commitment by the Company to do any of the acts described in subsections (i) through (xiv) above.

2.20 Employee Benefit Plans. Schedule 2.20 lists all employee benefit plans (as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA")) maintained by the Company. Each of such employee benefit plans complies in all material respects with (a) all applicable requirements of ERISA and (b) all applicable requirements of the Code (as defined below).

2.21 Tax Returns, Payments and Elections. The Company has accurately prepared in all material respects and duly and timely filed all tax returns and reports (including information returns and reports) as required by law. Such returns and reports are true and correct in all material respects, including the amount shown as due from the Company. The Company has paid all taxes and other assessments due. The provision for taxes of the Company as shown in the Financial Statements is adequate for taxes due or accrued as of the date thereof. The Company's tax returns have not been audited by the United States Internal Revenue Service or by any state taxing authority, and no such audit has been threatened by any such federal or state

authority. There are no outstanding agreements or waivers extending the statutory period of limitation applicable to any tax return of the Company.

2.22 Corporate Records. The Company has made available to the Purchasers complete records of all meetings and other corporate actions of the Company's stockholders, the Board and all committees, if any, appointed by the Board since the time of incorporation and reflect all transactions referred to in such minutes and corporate actions accurately in all material respects.

2.23 Small Business Concern. The Company is a "small business concern" as defined in Part 121 of Title 13 of the Code of Federal Regulations.

2.24 Proprietary Information and Inventions Agreements.

(a) The Company has taken all reasonable security measures to protect the secrecy, confidentiality and value of all its trade secrets, know how, inventions, prototypes, designs, processes, and technical data important to the conduct of its business.

(b) Each current and former employee and officer of the Company has executed a Proprietary Information and Inventions Agreement in substantially the form attached hereto as Exhibit B-1 or B-2, or an agreement containing substantially similar terms, and, except as set forth on Schedule 2.24, has not excluded works or inventions made prior to his or her employment with the Company from his or her assignment of inventions pursuant thereto. The Company has no knowledge that any of its current or former employees or officers are in violation of these agreements.

2.25 Obligations of Management. Each officer of the Company is currently providing full-time services to the conduct of the business of the Company. The Company has no knowledge that any officer of the Company is planning to work less than full time at the Company in the future. To the Company's knowledge, no officer is currently working or plans to work for a competitive enterprise.

2.26 Insurance. The Company has in full force and effect fire, casualty and general commercial insurance policies with coverage in amounts (subject to reasonable deductibles) customary for similarly situated companies.

2.27 Qualified Small Business Stock. To the best of its knowledge, the Company is a "qualified small business" within the meaning of Section 1202(d) of the Internal Revenue Code of 1986, as amended (the "Code") as of the date hereof and the Series D Stock should qualify as "qualified small business stock" as defined in Section 1202(c) of the Code as of the date hereof. As of the Closing: (i) the Company will be an eligible corporation as defined in Section 1202(e)(4) of the Code, (ii) the Company will not have made any purchases of its own stock during the one-year period preceding the Closing having an aggregate value exceeding 5% of the aggregate value of all of its stock as of the beginning of such period and (iii) the Company's aggregate gross assets, as defined by Code Section 1202(d)(2), at no time between formation and through the Closing have exceeded or will exceed \$50 million, taking into account the assets of any corporations required to be aggregated with the Company in accordance with Code Section 1202(d)(3); provided, however, that in no event shall the Company be liable to the Purchasers for any damages arising from any subsequently proven or identified error in the Company's

determination with respect to the applicability or interpretation of Section 1202 unless such determination shall have been given by the Company in a manner either negligent or fraudulent.

**3. Representations of the Purchasers.** Each of the Purchasers, severally and not jointly, hereby represents and warrants to the Company as follows (which representations and warranties shall not lessen or obviate the representations and warranties of the Company set forth in Section 2 above):

3.1 Authorization. The Purchaser has full power and authority to enter into and perform its obligations under the Financing Agreements in accordance with their terms. Any Purchaser which is a corporation, limited liability company, partnership or trust represents that it has not been organized, reorganized or recapitalized specifically for the purpose of investing in the Company. The Financing Agreements constitute valid and legally binding obligations of the Purchaser, enforceable against such Purchaser in accordance with their terms, subject to and limited by (i) applicable bankruptcy, insolvency, reorganization, moratorium, and other laws generally applicable to creditors' rights, (ii) judicial discretion in the availability of equitable relief, and (iii) federal and state securities laws to the extent applicable to the indemnification provision set forth in Section 8.

3.2 Purchase Entirely for Own Account. This Agreement is made with each Purchaser in reliance in part upon such Purchaser's representation to the Company, which such Purchaser hereby confirms by execution of this Agreement, that the Series D Stock to be received by Purchaser and the Common Stock issuable upon conversion of the Series D Stock (collectively, the "Securities") will be acquired for investment for Purchaser's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that such Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, Purchaser further represents that, other than normal duties under any partnership agreement under which Purchaser may have been formed, such Purchaser does not have any contract, undertaking, agreement, or arrangement with any person to sell, transfer, or grant participation to such person or to any third person, with respect to any of the Securities.

3.3 Disclosure of Information. Purchaser has received all the information that it considers necessary or appropriate for deciding whether to purchase the Series D Stock. Purchaser further represents that it has had sufficient opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of the Series D Stock.

3.4 Investment Experience. Purchaser acknowledges that it is able to fend for itself, can bear the economic risk of its investment, and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment in the Series D Stock. Purchaser also represents it has not been organized for the purpose of acquiring the Series D Stock.

3.5 Accredited Investor. Purchaser is an "accredited investor" within the meaning of SEC Rule 501(a) of Regulation D promulgated under the Act.

3.6 **Restricted Securities.** Purchaser understands that the shares of Series D Stock it is purchasing are characterized as “restricted securities” under the federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such securities may be resold without registration under the Act only in certain limited circumstances. In this regard, Purchaser represents that it is familiar with SEC Rule 144, as currently in effect, and understands the resale limitations imposed thereby and by the Act.

3.7 **No Public Market.** The Purchaser understands that no public market now exists for the Securities, and that the Company has made no assurances that a public market will ever exist for the Securities.

3.8 **Legends.** The Purchaser understands that the Securities and any securities issued in respect of or exchange for the Securities may bear one or all of the following legends:

(a) “THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.”

(b) “THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF ANY AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.”

(c) Any legend set forth in, or required by, the other Financing Agreements.

(d) Any legend required by the securities laws of any state to the extent such laws are applicable to the Securities represented by the certificate so legended.

**4. Conditions to the Obligations of the Purchasers.** The obligations of the Purchasers under this Agreement at the Closing are subject to the fulfillment, or waiver by the Purchasers, of each of the following conditions of the Company on or before the Closing:

4.1 **Representations and Warranties.** The representations and warranties of the Company contained in this Agreement shall be true as of the Closing (or such other date as specified in Section 2) with the same effect as though such representations and warranties had been made on and as of the date of the Closing (or such other date as specified in Section 2).

4.2 **Performance.** The Company shall have performed and complied with all agreements, obligations, and conditions contained in this Agreement that are required to be performed or complied with by the Company as of the Closing.

4.3 Opinion of Counsel. The Purchasers shall have received an opinion from WilmerHale LLP, counsel to the Company, dated as of the date hereof, addressed to such Purchasers, and substantially in the form of Exhibit C hereto.

4.4 Due Diligence. The Purchasers, in their sole discretion and to their satisfaction, shall have satisfactorily completed prior to the Closing their due diligence review of the Company, including due diligence related to its business, legal, intellectual property, accounting and financial matters.

4.5 Securities Law Approvals. The Company shall have received all requisite approvals, if any, of the securities authorities of each jurisdiction in which such approval is required, and such approvals shall be in full force and effect as of the Closing.

4.6 Legal Investment. At the time of the Closing, the purchase of the Shares by the Purchasers shall be legally permitted by all laws and regulations to which they or the Company are subject.

4.7 Voting Agreement. The Company shall have duly executed the Fifth Amended and Restated Voting Agreement, as amended by Amendment No. 1 dated the date hereof and substantially in the form attached hereto as Exhibit D (the "Voting Agreement"). The Voting Agreement shall have been executed by the requisite Investors, Additional Stockholders and Founders (each as defined in the Voting Agreement).

4.8 Right of First Refusal and Co-Sale Agreement. The Fifth Amended and Restated Right of First Refusal and Co-Sale Agreement, dated as of December 2, 2011 (the "Right of First Refusal and Co-Sale Agreement") shall be in full force and effect.

4.9 Certificates and Documents. The Company shall have delivered to the Purchasers:

(a) a copy of the Restated Certificate, as in effect immediately prior to the Closing, certified by the Secretary of State of the State of Delaware and certificates, as of the most recent practicable date, of the Secretary of State of the State of Delaware and the Commonwealth of Massachusetts as to the Company's corporate good standing and qualification to do business as a foreign corporation, respectively; and

(b) a certificate of the Secretary of the Company dated as of the Closing, certifying as to (i) the incumbency of officers of the Company executing the Financing Agreements and all other documents executed and delivered in connection herewith, (ii) a copy of the By-Laws of the Company, as in effect as of date of the Closing, (iii) a copy of the resolutions of the Board authorizing and approving the Company's execution, delivery, and performance of the Financing Agreements, all matters in connection with the Financing Agreements, and the transactions contemplated thereby and a statement to the effect that such resolutions are in full force and effect and that the Company's Certificate of Incorporation has not been further amended since the filing of the Restated Certificate and (iv) a copy of the resolutions of the stockholders of the Company authorizing and approving the filing of the Restated Certificate.



(c) copies of agreements reasonably satisfactory to the Purchasers between the Company and each current and former officer, employee and consultant of the Company including provisions governing the protection of confidential information, assignment of intellectual property, competition with the Company, development rights and non-solicitation of the Company's employees and consultants.

4.10 Compliance Certificate. The President of the Company shall deliver to the Purchasers at the Closing a certificate certifying that the conditions specified in Sections 4.1 and 4.2 have been fulfilled.

4.11 No Material Adverse Change. There shall have been no materially adverse change in the business, operations, results of operations, assets or financial condition of the Company since the Balance Sheet Date, and no such materially adverse change shall be reasonably likely to occur.

4.12 Absence of Litigation. No action, suit or proceeding shall have been instituted before any court or governmental or regulatory body or instituted or threatened by any governmental or regulatory body, to restrain, modify or prevent the carrying out of the Closing or of the transactions contemplated hereby or by the other Financing Agreements, or to seek damages or a discovery order in connection with such transactions, or that has or may have, in the reasonable opinion of the Purchasers, a materially adverse effect on the assets, properties, business, operations or condition (financial or otherwise) of the Company.

4.13 Certificate of Adjustment. The Company shall have delivered to the Purchasers a Certificate of Adjustment setting forth the Conversion Price (as defined in the Restated Charter) of each series of Preferred Stock after giving effect to the Closing.

4.14 ERISA Management Rights Letter. The Company shall have delivered an ERISA Management Rights Letter to any Purchaser so requesting, in form reasonably satisfactory to such Purchaser(s).

4.15 Other Matters. All corporate and other proceedings in connection with the transactions contemplated at the Closing by this Agreement, and all documents and instruments incident to such transactions, shall be reasonably satisfactory in substance and form to the Purchasers, and the Purchasers shall have received all such counterpart originals or certified or other copies of such documents as they may reasonably request.

**5. Conditions to Obligations of the Company**. The obligations of the Company under this Agreement are subject to the fulfillment, or waiver by the Company, of each of the following conditions of the Purchasers on or before the Closing:

5.1 Representations and Warranties. The representations and warranties of each Purchaser contained in this Agreement shall be true as of the Closing with the same effect as though such representations and warranties had been made on and as of the date of the Closing.

5.2 Payment of Purchase Price. Each Purchaser shall have delivered the purchase price in the amount set forth with respect to such Purchaser in Schedule 1 for all Shares purchased by such Purchaser at the Closing.

5.3 Absence of Litigation. No action, suit or proceeding shall have been instituted before any court or governmental or regulatory body or instituted or threatened by any governmental or regulatory body, to restrain, modify or prevent the carrying out of the Closing or of the transactions contemplated hereby or by the other Financing Agreements, or to seek damages or a discovery order in connection with such transactions, or that has or may have, in the reasonable opinion of the Company, a materially adverse effect on the assets, properties, business, operations or condition (financial or otherwise) of the Company.

5.4 Other Matters. All corporate and other proceedings in connection with the transactions contemplated at the Closing by this Agreement, and all documents and instruments incident to such transactions, shall be reasonably satisfactory in substance and form to the Company and its counsel.

**6. Covenants of the Company.** The Company covenants and agrees that so long as (i) at least ten percent (10%) of the shares of Preferred Stock outstanding as of the date hereof after giving effect to the issuance of Series D Stock in the Closing (or shares of Common Stock issued upon conversion thereof) remain outstanding and (ii) any Purchaser holds at least 1,500,000 shares of Preferred Stock (each a “Major Investor”), it will perform and observe the following covenants and provisions:

6.1 Financial Statements. The Company will maintain books of account in accordance with generally accepted accounting principles applied on a consistent basis, keep full and complete financial records, and furnish the following reports to each Major Investor:

(a) as soon as practicable, but in any event within one hundred eighty (180) days after the end of the applicable fiscal year, an income statement for such fiscal year, a balance sheet of the Company, a statement of cash flows and a statement of stockholders’ equity as of the end of such year, such year-end financial reports to be in reasonable detail, prepared in accordance with GAAP, and audited and certified by independent public accountants of nationally recognized standing selected by the Audit Committee of the Board.

(b) as soon as practicable, but in any event within thirty (30) days after the end of each month and within forty five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, an unaudited income statement for such month or quarter, as applicable, a balance sheet as of the end of such month or quarter, as applicable, and a statement of cash flows as of the end of such month or quarter, as applicable; and

(c) such other financial information of the Company as such Major Investor may reasonably request, including certificates of the principal financial officer of the Company concerning compliance with the covenants of the Company under this Section 6.

6.2 Operating Plan; Other Reporting. The Company will prepare and deliver to each Major Investor on or before the last meeting of the Board in any year, an annual operating plan (including a budget) prepared on a monthly basis. The Company shall promptly deliver to each Major Investor any revisions to such operating plan prior to adoption thereof by the Board. In addition, the Company will promptly provide to each Major Investor other customary

information and materials, including reports of adverse developments, management letters, communications with stockholders or directors, press releases, and registration statements.

6.3 Inspection. The Company shall, upon reasonable prior notice to the Company, permit authorized representatives of the Major Investors to visit and inspect any of the properties of the Company including its books of account (and to make copies thereof and take extracts therefrom), and to discuss the affairs, finances, and accounts of the Company with its officers, administrative employees, and independent accountants, all at the expense of such Major Investors and at such reasonable times and as often as may be reasonably requested.

6.4 Employee Agreements. The Company shall require all its present and future employees and consultants to enter into suitable agreements with provisions governing, among other things, the protection of confidential information, assignment of intellectual property, competition with the Company, development rights and non-solicitation of the Company's employees and consultants. The agreements relating to competition with the Company and non-solicitation of the Company's employees and consultants shall be, to the extent permitted by applicable state law, for terms of not less than a period of twelve (12) months from the date of termination of employment of any such employee or consultant with the Company. The Company shall require all employees to execute and deliver a Proprietary Information and Inventions Agreement substantially in the form attached hereto as Exhibit B-2.

6.5 Employee Stock Options. Except as otherwise approved by the Board, including a majority of the directors designated by holders of the Company's Preferred Stock (the "Preferred Directors"), (a) no person shall be granted severance (whether in the form of cash, securities, or otherwise) or accelerated vesting and (b) any stock options granted by the Company to its employees, shall vest according to the following schedule: 1/4th of the total number of shares subject to a stock option will vest on the first anniversary of the date such option was granted and 1/48th of such number of shares will vest for each month of continuous service thereafter over the next thirty six (36) months.

6.6 Reservation of Conversion Stock. The Company will, upon any increase in the number of shares of Common Stock issuable upon conversion of the Seed Stock, Series A Stock, Series B Stock, Series B-1 Stock, Series C Stock or Series D Stock, reserve additional shares of Common Stock for issuance upon such conversion, so that the number of shares of Common Stock so reserved will be adequate in the event of such conversion.

6.7 Board Meetings. The Company agrees to hold a meeting of the Board at least four (4) times a year, unless otherwise determined by the Board of Directors, including a majority of the Preferred Directors.

6.8 D&O Insurance. The Company shall use its commercially reasonable efforts to maintain, from financially sound and reputable insurers, Directors and Officers liability insurance in a coverage amount not less than \$2,000,000 and on terms and conditions satisfactory to the Board, until such time as the Board determines that such insurance should be discontinued.

6.9 CEO Expenses. The Company's Audit Committee shall review the expense reports of the Chief Executive Officer of the Company at least twice per year.

6.10 Qualified Small Business Stock. The Company shall submit to the Internal Revenue Service any reports that may be required under Section 1202(d)(1)(C) of the Code and the related Treasury Regulations. In addition, within a commercially reasonable time after any holder of the Company's Preferred Stock (each a "Preferred Investor") has delivered to the Company a written request therefor, the Company shall deliver to such Preferred Investor a written statement indicating whether, to the knowledge of the Company, such Preferred Investor's interest in the Company constitutes "qualified small business stock" as defined in Section 1202(c) of the Code, or, at the election of the Company, a written statement containing such factual information available to the Company as may be reasonably required by the Preferred Investor permit the Preferred Investor or the Preferred Investor's advisors to determine whether the Preferred Investor's interest in the Company constitutes "qualified small business stock" as defined in Section 1202(c) of the Code.

## **7. Participation Rights.**

### **7.1 Definitions.**

"New Securities" shall mean (i) any capital stock of the Company whether or not currently authorized, (ii) all Options and (iii) all Convertible Securities. For purposes of this Section 7.1, "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities (as hereafter defined) and "Convertible Securities" shall mean any evidences of indebtedness, shares (other than Common Stock or other stock issued on conversion of the Seed Stock, Series A Stock, Series B Stock, Series B-1 Stock, Series C Stock or Series D Stock) or other securities, including preferred stock, directly or indirectly convertible into or exchangeable for capital stock of the Company or other securities convertible into capital stock of the Company, but excluding Options. Notwithstanding the foregoing, the term "New Securities" shall not include the following:

(A) shares of Common Stock issued upon conversion of shares of Seed Stock, Series A Stock, Series B Stock, Series B-1 Stock, Series C Stock or Series D Stock or shares of Common Stock issued by way of a dividend or distribution on shares of Seed Stock, Series A Stock, Series B Stock, Series B-1 Stock, Series C Stock or Series D Stock;

(B) shares of Common Stock or Options to purchase shares of Common Stock, up to an aggregate of 15,900,000 shares of Common Stock, issued to officers, directors or employees of, or consultants or advisors to, the Company or any of its subsidiaries pursuant to any stock purchase or option plan or other employee or director stock incentive or compensation agreement or program (each, a "Plan") approved by the Board, including a majority of the Preferred Directors;

(C) shares of Common Stock, Options or Convertible Securities issued in consideration for the acquisition or licensing of technology or a corporate partnership transaction, if approved by the Board, including a majority of the Preferred Directors not abstaining from voting on the matter;

(D) shares of Common Stock, Options or Convertible Securities issued pursuant to debt financing, equipment leasing or real property leasing transactions, if approved by the Board, including a majority of the Preferred Directors;

(E) shares of Common Stock issued to the public in connection with a Qualified IPO (as defined in the Company's certificate of incorporation);

(F) shares of Common Stock, Options or Convertible Securities issued (i) to a target corporation or its stockholders pursuant to the acquisition of such corporation by the Company by merger, purchase of substantially all of the assets or other reorganization or (ii) pursuant to a joint venture agreement, provided that such issuances are approved by the Board, including a majority of the Preferred Directors not abstaining from voting on the matter;

(G) shares of Common Stock, Options or Convertible Securities issued to suppliers or third party service providers in connection with the provision of goods or services pursuant to transactions approved by the Board, including a majority of the Preferred Directors;

(H) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security as in effect as of the time of such issue; and

(I) shares sold pursuant to Section 1 of this Agreement.

“Preferred Investor” shall include, for the purposes of this Section 7, the general partners, officers, or other affiliates of such Preferred Investor, and a Preferred Investor may apportion its pro rata share among itself and such general partners, officers, and other affiliates in such proportions as it deems appropriate.

7.2 Participation Right. Each Preferred Investor shall be entitled to a right to purchase, on a pro rata basis, all or any part of New Securities which the Company may, from time to time, propose to sell and issue, subject to the terms and conditions set forth below. Such Preferred Investor's pro rata share (the “Pro Rata Share”) shall equal a fraction of the New Securities being issued, the numerator of which is the number of shares of Common Stock issuable upon conversion of the Preferred Stock then held by such Preferred Investor, and the denominator of which is the total number of shares of Common Stock then outstanding plus the number of shares of Common Stock issuable upon (i) conversion of then outstanding Preferred Stock or other Convertible Securities and (ii) exercise of then outstanding Options.

7.3 Exercise of Right. In the event the Company intends to issue New Securities, it shall give each Preferred Investor written notice of such intention, describing the type of New Securities to be issued, the price thereof, and the general terms upon which the Company proposes to effect such issuance (the “Sale Notice”). Each Preferred Investor shall have twenty (20) days from the date of any Sale Notice to agree to purchase all or part of its Pro Rata Share of such New Securities for the price and upon the general terms and conditions specified in the Sale Notice by giving written notice to the Company stating the quantity of New Securities to be so purchased (the “Exercise Notice”); provided, however, that in the event that the transaction described in a Sale Notice involves in whole or in part the payment of non-cash consideration, or

the payment of consideration over time, the Preferred Investors shall have the right to elect, upon exercise of their rights set forth in this Section 7, to pay to the Company in full consideration for the New Securities the market price of such securities which shall be the present cash value of the consideration described in the Sale Notice as determined by the Board in good faith.

**7.4 Overallocation.** In the event any Preferred Investor fails to exercise its right to purchase its Pro Rata Share of New Securities, each Preferred Investor who delivered an Exercise Notice for such Preferred Investor's total Pro Rata Share of New Securities (an "Overallocation Preferred Investor") shall have a right to purchase such Overallocation Preferred Investor's pro rata share of the New Securities with respect to which Preferred Investors have failed to exercise their rights hereunder ("Remaining New Securities"). In such case, within twenty five (25) days after the date of the Sale Notice, the Company shall provide written notice ("Overallocation Notice") to each Overallocation Preferred Investor, which shall state the total amount of Remaining New Securities, and the pro rata portion of such Remaining New Securities which each Overallocation Preferred Investor is entitled to purchase. Each Overallocation Preferred Investor wishing to purchase such Remaining Securities shall amend such Overallocation Preferred Investor's Exercise Notice in writing within ten (10) days from the date of the Overallocation Notice. For the purpose of this Section 7.4, an Overallocation Preferred Investor's pro rata share of the Remaining New Securities shall be calculated as provided in Section 7.2, except that the denominator of the fraction shall be the total number of shares of Common Stock issued or issuable upon conversion of shares of Preferred Stock held by all of the Overallocation Preferred Investors but shall exclude shares of Common Stock issuable on conversion of other preferred stock or other convertible securities or on exercise of options, rights, or warrants.

**7.5 Closing.** The closing of the purchase of New Securities by the Preferred Investors exercising their rights hereunder ("Participating Preferred Investors") shall take place at such location, date and time as the parties shall agree but not later than the later of (i) sixty (60) days following the date of the Sale Notice or (ii) thirty (30) days following the date of the Overallocation Notice. At the closing, the Company shall deliver to the Participating Preferred Investors certificates representing all of the New Securities to be purchased and (ii) such other agreements executed by the Company which grant any rights or privileges to the Participating Preferred Investors as are being granted to the other purchasers in such issuance, and in any event, at the request of the Participating Preferred Investors, a duly executed certificate reasonably satisfactory to the Participating Preferred Investors containing a representation and warranty that, upon issuance or transfer of such securities to the Participating Preferred Investors that the Participating Preferred Investors will be the legal and beneficial owners of such securities with good title thereto, free and clear of all mortgages, liens, charges, security interests, adverse claims, pledges, encumbrances and demands whatsoever, and that the Company has the absolute right to issue or transfer such securities to the Participating Preferred Investors without the consent or approval of any other person. At the closing, the Participating Preferred Investors shall deliver to the Company (i) payment for the New Securities and (ii) such other customary agreements executed by the other purchasers in such issuance which include representations by such purchasers to the Company or restrict such purchaser's rights with respect to the New Securities, and, at the request of the Company, a duly executed certificate reasonably satisfactory to the Company containing such representations and warranties of the Participating Preferred Investors with respect to federal and state securities laws. The certificates

representing the equity securities may contain a legend stating that they are issued subject to the registration requirements of the Act, and applicable state securities laws.

7.6 Failure to Exercise Right. In the event the Preferred Investors fail to exercise the foregoing participation right with respect to any New Securities within the periods specified by Sections 7.3 and 7.4 above, the Company may within one hundred and twenty (120) days after the delivery of the Sale Notice sell any or all of such New Securities not agreed to be purchased by the Preferred Investors, at a price and upon general terms no more favorable to the purchasers thereof than specified in the Sale Notice. In the event the Company has not sold such New Securities within such 120-day period, the Company shall not thereafter issue or sell any New Securities without first offering such New Securities to the Preferred Investors in the manner provided in Section 7.3.

**8. Registration Rights.** The Company covenants and agrees as follows:

8.1 Definitions. As used in this Section 8, the following terms shall have the following meanings:

(a) “Form S-1” means such form under the Act as in effect on the date hereof, or any registration form under the Act subsequently adopted by the SEC which permits the registration of securities under the Act for which no other form is authorized or prescribed.

(b) “Form S-3” means such form under the Act as in effect on the date hereof or any registration form under the Act subsequently adopted by the SEC which permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC.

(c) “Preferred Holder” means (i) a Preferred Investor and any persons or entities to whom the rights granted under this Section 8 are transferred by the Preferred Investor, (ii) Silicon Valley Bank (“SVB”) and any registered assigns to which it transfers the rights granted under this Section 8 (the “SVB Entities”), for purposes of Sections 8.2 through 8.15 inclusive, and Section 9 (the “Applicable Sections”) and (iii) Lighthouse Capital Partners VI, L.P. (“Lighthouse”) and any registered assigns to which it transfers the rights granted under this Section 8 (the “Lighthouse Entities”), for purposes of the Applicable Sections; provided, however, that none of the SVB Entities or the Lighthouse Entities shall be permitted to be an Initiating Holder (as hereinafter defined) under Section 8.2.

(d) “Preferred Investor” means, for purposes of this Section 8, any holder of the Company’s Preferred Stock or of any shares of Common Stock issued upon conversion of shares of the Company’s Preferred Stock; provided that if such holder received such shares through a transfer from another holder, such transfer must comply with Sections 8.14 and 9 hereof.

(e) “Holders” means (i) the Preferred Holders, including the SVB Entities and the Lighthouse Entities for purposes of the Applicable Sections, and (ii) Ram Sasisekharan, Shiladitya Sengupta, Alan L. Crane, Alexandra Glucksmann, The Crane Family Irrevocable Trust – 2002, the Sasisekharan Family 2006 Irrevocable Trust, the Sasisekharan Parents 2006

Irrevocable Trust, the Narayanasami Parents 2006 Irrevocable Trust, Raguram Sasisekharan and Mahesh Narayanasami and their Permitted Transferees (the “Founder Holders”).

(f) “Immediate Family” shall mean any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, nephew, niece, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law and shall include adoptive relationships.

(g) “Permitted Transferee” means, with respect to the Founder Holders, (i) any member or members of a Holder’s or such Holder’s spouse’s Immediate Family to whom Registrable Securities are transferred; and (ii) any trust to which Registrable Securities are transferred (A) in respect of which such Holder serves as trustee, provided that the trust instrument governing such trust shall provide that such Holder, as trustee, shall retain sole and exclusive control over the voting and disposition of such Registrable Securities until the termination of this Section 8 or (B) for the benefit solely of any member or members of such Holder’s or such Holder’s spouse’s Immediate Family; provided, that no person or entity shall be a Permitted Transferee unless (x) a written notice is furnished to the Company at the time of such transfer stating the name and address of the transferee and identifying the Registrable Securities with respect to which such rights are being assigned and (y) the transferee agrees in writing to become bound by the terms and conditions of this agreement with respect to such Registrable Securities.

(h) “1934 Act” shall mean the Securities Exchange Act of 1934, as amended.

(i) The terms “register,” “registered,” and “registration” refer to a registration effected by preparing and filing a registration statement or similar document in compliance with the Act, and the declaration or ordering of effectiveness of such registration statement or document.

(j) “Registrable Securities” means (i) the Common Stock held by the Founder Holders and their Permitted Transferees, (ii) the Common Stock issuable or issued upon conversion of the Preferred Stock, (iii) the Common Stock issued and issuable upon conversion of the shares of Preferred Stock issued and issuable upon exercise of that certain Warrant to Purchase Stock dated as of August 8, 2008 issued by the Company to SVB (the “Warrant”) or, at all times when the Class (as defined in the Warrant) shall be Common Stock, the shares of Common Stock issued and issuable upon exercise or conversion of the Warrant, (iv) the Common Stock issued and issuable upon conversion of the shares of Preferred Stock issued and issuable upon exercise of that certain Preferred Stock Purchase Warrant dated December 6, 2011, as amended, issued by the Company to Lighthouse (the “Lighthouse Warrant”) or, at all times when the Lighthouse Warrant shall be exercisable for shares of Common Stock, the shares of Common Stock issued and issuable upon exercise or conversion of the Lighthouse Warrant, and (v) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right, or other security which is issued as) a stock split, dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in (i), (ii) and (iii) above, excluding in all cases, however, any Registrable Securities sold by a person in a transaction in which the rights under this Section 8 are not properly assigned.



(k) “Outstanding Registrable Securities” shall mean the number of shares of Common Stock outstanding that are, and the number of shares of Common Stock issuable pursuant to then exercisable or convertible securities which are, Registrable Securities.

## 8.2 Demand Registration.

(a) If the Company shall receive, at any time after the earlier of (i) four (4) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the registration statement for the Company’s first underwritten public offering of its common stock under the Act (such offering, the “IPO”), a written notice from Preferred Holders holding at least fifty-eight percent (58%) of the Outstanding Registrable Securities then held by Preferred Holders requesting that the Company effect a registration statement under the Act with respect to all or a part of the Registrable Securities held by such Preferred Holder or Preferred Holders, then the Company shall:

- (i) within ten (10) days of the receipt thereof, give written notice of such request to all Preferred Holders, other than the Initiating Holders (as defined below) (the “Demand Notice”); and
- (ii) use its best efforts to effect as soon as practicable, and in any event within ninety (90) days of the receipt of such request by the Initiating Holders, the registration under the Act of all Registrable Securities which the Preferred Holders request to be registered, by notice to the Company within thirty (30) days of the mailing of the Demand Notice sent by the Company in accordance with Section 8.2(a)(i), subject to the limitations of Subsections 8.2(b), 8.2(c) and 8.2(d).

(b) If the Preferred Holders initiating the registration request hereunder (“Initiating Holders”) intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to subsection 8.2(a) and the Company shall include such information in the Demand Notice. The underwriter will be selected by the Company and shall be reasonably acceptable to the Initiating Holders holding a majority of the Outstanding Registrable Securities requested to be included in such registration. In such event, the right of any Preferred Holder to include Registrable Securities in such registration shall be conditioned upon such Preferred Holder’s participation in such underwriting and the inclusion of such Preferred Holder’s Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Initiating Holders and such Preferred Holder) to the extent provided herein. All Preferred Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in subsection 8.5(e)) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting. Notwithstanding any other provision of this Section 8.2, if the underwriter advises the Initiating Holders in writing that marketing factors require a limitation of the number of shares to be underwritten, then the Initiating Holders shall so advise all Preferred Holders of Registrable Securities which would otherwise be underwritten pursuant hereto, and the number of shares of Registrable Securities that may be included in the underwriting shall be allocated among all Preferred Holders thereof,

including the Initiating Holders, in proportion (as nearly as practicable) to the amount of Registrable Securities of the Company owned by each Preferred Holder; provided, however, that the number of shares of Registrable Securities to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting.

(c) Notwithstanding the foregoing, if the Company shall furnish to Preferred Holders requesting registration pursuant to this Section 8.2 a certificate signed by the President of the Company stating that in the good faith judgment of the Board that it would be seriously detrimental to the Company for a registration statement to be filed and it is therefore essential to defer the filing of such registration statement, then the Company shall have the right to defer taking action with respect to such filing for a period of not more than ninety (90) days after receipt of the request of the Initiating Holders.

(d) In addition, the Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to this Section 8.2 after the Company has effected two (2) registrations pursuant to this Section 8.2 and such registration statement has been declared or ordered effective and the sales of Registrable Securities under such registration statement have closed.

(e) No incidental right under this Section 8.2 shall be construed to limit any registration required under Section 8.3 or Section 8.4 herein.

### 8.3 "Piggy-Back" Registration.

(a) If (but without any obligation to do so) the Company proposes to register (including for this purpose a registration effected by the Company for stockholders other than the Holders) any of its stock or other securities under the Act in connection with the public offering of such securities solely for cash, other than (i) a registration relating solely to the sale of securities to participants in a stock plan, (ii) a registration on any form which does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities, or (iii) a registration on Form S-4 (or any successor form) relating solely to a transaction pursuant to the SEC's Rule 145, the Company shall, at such time, promptly give each Holder written notice of such registration. Upon the written request of each Holder given within twenty (20) days after the mailing of such notice by the Company in accordance with Section 11.8, the Company shall, subject to the provisions of subsection 8.3(b), cause to be registered under the Act all of the Registrable Securities that each such Holder has requested to be registered.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock, the Company shall not be required under this Section 8.3 to include any of the Holders' securities in such underwriting unless such Holders accept the terms of the underwriting as agreed upon between the Company and the underwriters selected by it (or by other persons entitled to select the underwriters), and then only in such quantity as the underwriters determine in their sole discretion will not jeopardize the success of the offering by the Company. If the total amount of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the amount of securities to be sold (other than by the Company) that the underwriters determine in their sole discretion is compatible with

the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters determine in their sole discretion will not jeopardize the success of the offering; provided, however, there shall first be excluded from such registration statement all shares of Common Stock sought to be included therein by (i) any director, consultant, officer, or employee of the Company or any subsidiary thereof other than the Founder Holders and (ii) stockholders exercising any contractual or incidental registration rights subordinate and junior to the rights of the Preferred Holders of Registrable Securities. If after such shares are excluded, the underwriters shall determine in their sole discretion that the number of securities which remain to be included in the offering exceeds the amount of securities to be sold that the underwriters determine is compatible with the success of the offering, then there shall second be excluded from such registration statement all shares of Common Stock sought to be included therein by the Founder Holders. If after such additional shares are excluded, the underwriters shall determine in their sole discretion that the number of securities which remain to be included in the offering exceeds the amount of securities to be sold that the underwriters determine is compatible with the success of the offering, then the Registrable Securities to be included, if any, shall be apportioned pro rata among the Holders other than Founder Holders providing notice of their desire to participate in the offering according to the total amount of securities entitled to be included therein owned by each such selling Holder or in such other proportions as shall mutually be agreed to by such Holders, provided, however, that no exclusion of such Holders' Registrable Securities shall be made unless all other stockholders' securities are first excluded. For purposes of the preceding sentence concerning apportionment, for any selling Holder which is a partnership or corporation, the partners, retired partners, and stockholders of such Holder, or the estates and family members of any such partners and retired partners and any trusts for the benefit of any of the foregoing persons shall be deemed to be a single "selling Holder," and any pro-rata reduction with respect to such "selling Holder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "selling Holder," as defined in this sentence.

(c) No incidental right under this Section 8.3 shall be construed to limit any registration required under Section 8.2 or Section 8.4 herein.

8.4 Form S-3 Registration. In case the Company shall receive from one or more Preferred Holders a written request or requests that the Company effect a registration on Form S-3 with respect to all or a part of the Registrable Securities owned by such Preferred Holder(s), the Company agrees:

(a) to promptly give written notice of the proposed registration (the "S-3 Notice") to all other Preferred Holders, if any; and

(b) as soon as practicable after receiving such a request, use its commercially reasonable efforts to effect such registration as would permit or facilitate the sale and distribution of all or such portion of such Preferred Holder's or Preferred Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Preferred Holder(s) joining in such request as are specified in a written request given within fifteen (15) days after the S-3 Notice is given by the Company; provided, however, that the Company shall not be obligated to effect any such registration pursuant to this Section 8.4 (i)

if Form S-3 is not available for such offering by the Preferred Holder(s); (ii) if the Preferred Holder(s), together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public of less than \$1,000,000; (iii) if the Company shall furnish to the Preferred Holder(s) a certificate signed by the President of the Company stating that it would be in the good faith judgment of the underwriters seriously detrimental to the Company for such Form S-3 registration to be effected at such time, in which event the Company shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than sixty (60) days after receipt of the request of the Preferred Holder(s) under this Section 8.4; provided, however, that the Company shall not utilize this right more than once in any twelve (12) month period; or (iv) if the Company has effected two (2) registrations on Form S-3 (or its then equivalent) pursuant to this Section 8.4 within the previous 12-month period and such registrations have been declared or ordered effective and the sales of Registrable Securities under such registration statement have closed.

(c) Registrations effected pursuant to this Section 8.4 shall not be counted as demands for registration or registrations effected pursuant to Sections 8.2 or 8.3, respectively.

**8.5 Obligations of the Company.** Whenever required under this Section 8 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible (but subject to providing counsel to the Holders with a reasonable opportunity to review and comment on all documents):

(a) Prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the Registration Statement has been completed; provided, however, that (i) such 120-day period shall be extended for a period of time equal to the period the Holder refrains from selling any securities included in such registration at the request of an underwriter of Common Stock (or other securities) of the Company and (ii) in the case of any registration of Registrable Securities on Form S-3 which are intended to be offered on a continuous or delayed basis, such 120-day period shall be extended, if necessary, to keep the registration statement effective until all such Registrable Securities are sold or could be sold without restriction under SEC Rule 144; provided, that SEC Rule 415, or any successor rule under the Act, permits an offering on a continuous or delayed basis; and provided further that applicable rules under the Act governing the obligation to file a post-effective amendment permit, in lieu of filing a post-effective amendment which (x) includes any prospectus required by Section 10(a)(3) of the Act or (y) reflects facts or events representing a material or fundamental change in the information set forth in the registration statement, the incorporation by reference of information required to be included in (x) and (y) above to be contained in periodic reports filed pursuant to Section 13 or 15(d) of the 1934 Act in the registration statement.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Act with respect to the disposition of all

securities covered by such registration statement in accordance with each Holder's intended method of disposition.

(c) Furnish to the Holders such numbers of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by the Holders.

(d) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders and any managing underwriter; provided, that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Act.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

(f) Promptly notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Act as a result of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing.

(g) Cause all such Registrable Securities registered pursuant hereunder to be listed on each securities exchange on which similar securities issued by the Company are then listed.

(h) Provide a transfer agent and registrar for all Registrable Securities registered pursuant hereunder and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration.

(i) Furnish, at the request of any Holder requesting registration of Registrable Securities pursuant to this Section 8, on the date that such Registrable Securities are delivered to the underwriters for sale in connection with a registration pursuant to this Section 8, if such securities are being sold through underwriters, copies of (i) the opinion, dated as of such date, of the counsel representing the Company for the purposes of such registration given to the underwriters in such underwritten public offering, which opinion shall be in such form as is reasonably satisfactory to counsel to the underwriters, and (ii) the letter dated as of such date, from the independent certified public accountants of the Company, to the underwriters in such underwritten public offering, addressed to the underwriters, which letter shall be in such form as is reasonably satisfactory to counsel to the underwriters.

8.6 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 8 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as shall be required to effect the registration of such Holder's Registrable Securities.

8.7 Expenses of Demand and S-3 Registrations. The Company shall pay all expenses other than underwriting discounts and commissions incurred in connection with registrations, filings, or qualifications pursuant to Sections 8.2 and 8.4, including (i) all registration, filing, and qualification fees (including filing fees with the SEC, fees due to the Financial Industry Regulatory Authority and fees due for listing on any stock exchange); (ii) printers and accounting fees; (iii) fees and disbursements of counsel for the Company; and (iv) the reasonable fees and disbursements of one (1) counsel for the selling Preferred Holders; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 8.2 or 8.4 if the registration request is subsequently withdrawn at the request of the holders of a majority of the Registrable Securities then held by Preferred Holders to be registered (in which case all Preferred Holders participating in the aborted registration shall bear such expenses on a pro rata basis in accordance with the number of Registrable Securities requested to be registered by such Preferred Holders), unless the holders of a majority of the Registrable Securities then held by Preferred Holders agree to forfeit their rights to a registration under, as the case may be, Section 8.2 (demand registration) or Section 8.4 (S-3 registration); provided further, however, that if at the time of such withdrawal, the Preferred Holders have either (i) learned of a material adverse change in the condition or business, or prospects of the Company from that known to the Preferred Holders at the time of their request or (ii) been informed by the underwriters of such registration that more than twenty percent (20%) of the Registrable Securities requested for registration shall not be includable therein due to market factors, and in either such case the Preferred Holders have withdrawn the request with reasonable promptness following such disclosure, then the Preferred Holders shall not be required to pay such expenses and shall retain their rights pursuant to Sections 8.2 and 8.4.

8.8 Expenses of "Piggy-Back" Registration. The Company shall pay all expenses incurred in connection with any registration, filing, or qualification of Registrable Securities with respect to the registrations pursuant to Section 8.3 for each Holder, including all registration, filing, and qualification fees, printers and accounting fees relating or apportionable thereto, and the reasonable fees and disbursements of one counsel for the selling Holders selected by them, but excluding underwriting discounts and commissions relating to the Registrable Securities.

8.9 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 8.

8.10 Indemnification. In the event any Registrable Securities are included in a registration statement under this Section 8:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, any underwriter (as defined in the Act) for such Holder, the members, partners, officers, directors and stockholders of each Holder, and each person (if any) who

controls such Holder or underwriter within the meaning of the Act or the 1934 Act, against any losses, claims, damages, or liabilities joint or several) to which they may become subject under the Act, the 1934 Act, other federal or state law, or the laws of any other jurisdiction insofar as such losses, claims, damages, or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions, or violations (collectively a "Violation") (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Act, the 1934 Act, any state securities law, or any rule or regulation promulgated under the Act, the 1934 Act, or any state securities law; and the Company will pay to each such Holder, underwriter, or controlling person, as incurred, any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this subsection 8.10(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, claim, damage, liability, or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by any such Holder, underwriter, or controlling person.

(b) To the extent permitted by law, each selling Holder severally and not jointly will indemnify and hold harmless the Company, each of its directors, each of its officers, each person (if any) who controls the Company within the meaning of the Act, any underwriter, any other Holder selling securities in such registration statement, and any controlling person of any such underwriter or other Holder, against any losses, claims, damages, or liabilities joint or several) to which any of the foregoing persons may become subject, under the Act, the 1934 Act or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration; and each such Holder will pay, as incurred, any legal or other expenses reasonably incurred by any person intended to be indemnified pursuant to this subsection 8.10(b), in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this subsection 8.10(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and further provided that in no event shall any indemnity under this subsection 8.10(b) exceed the proceeds from the offering received by such Holder (net of any selling expenses paid by such Holder).

(c) Promptly after receipt by an indemnified party under this Section 8.10 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 8.10, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to

assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties which may be represented without conflict by one counsel) shall have the right to retain one separate counsel and participate in the defense, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 8.10, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 8.10.

(d) If the indemnification provided for in this Section 8.10 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, liability, claim, damage, or expense referred to therein, then the indemnifying party, in lieu of indemnifying such indemnified party hereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the indemnifying party, on the one hand, and of the indemnified party, on the other, in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations; provided, however, that no contribution by any Holder, when combined with any amounts paid by such Holder pursuant to Section 8.10(b), shall exceed the proceeds from the offering received by such Holder (net of any selling expenses paid by such Holder). The relative fault of the indemnifying party and of the indemnified party shall be determined by a court of competent jurisdiction by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control; provided, however, that the failure of the underwriting agreement to address a provision addressed in this Agreement shall not be deemed a conflict.

(f) Unless otherwise superseded by an underwriting agreement as provided in subsection 8.10(e) above, the obligations of the Company and Holders under this Section 8.10 shall survive the completion of any offering of Registrable Securities in a registration statement under this Section 8, and otherwise.

8.11 Reports Under the 1934 Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company agrees to use its best efforts:



(a) to make and keep public information available, as those terms are understood and defined in SEC Rule 144, at all times after ninety (90) days after the effective date of the first registration statement filed by the Company for the offering of its securities to the general public;

(b) to take such action, including the voluntary registration of its Common Stock under Section 12 of the 1934 Act, as is necessary to enable the Holders to utilize Form S-3 for the sale of their Registrable Securities, such action to be taken as soon as practicable after the end of the fiscal year in which the first registration statement filed by the Company for the offering of its securities to the general public is declared effective;

(c) to file with the SEC in a timely manner all reports and other documents required of the Company under the Act and the 1934 Act; and

(d) to furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the first registration statement filed by the Company), the Act and the 1934 Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC which permits the selling of any such securities without registration or pursuant to such form.

8.12 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of 60% of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would provide to such holder the right to include securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included; provided that this limitation shall not apply to any Purchaser hereunder.

8.13 "Market Stand-Off" Agreement. Each Holder hereby agrees that, during the period of duration (not to exceed one hundred eighty (180) days) specified by the Company and an underwriter of Common Stock or other securities of the Company (the "Lock-Up Period"), following the effective date of a registration statement of the Company filed under the Act relating to the IPO of the Company, such Holder shall not, to the extent requested by the Company and such underwriter, directly or indirectly sell, offer to sell, contract to sell (including any short sale), grant any option to purchase, or otherwise transfer or dispose of (other than to donees who agree to be similarly bound) any securities of the Company held by it at any time during the Lock-Up Period except Common Stock included in such registration; provided, however, that all officers and directors of the Company, Founder Holders and stockholders holding in excess of one percent (1%) of the outstanding Common Stock of the Company (treating all Preferred Stock on an as-converted to Common Stock basis) enter into similar

agreements. Any discretionary waiver or termination by the Company or the underwriters of the restrictions described in this Section 8.12 as applied to any Holder, officer or director of the Company (the "Subject Parties") shall apply pro rata to all Holders subject to such restrictions, based on the number of shares held by each Holder that are subject to such restrictions, except that, notwithstanding the foregoing, the Company and the underwriters may, in their sole discretion, waive or terminate these restrictions with respect to (i) the exercise or conversion of stock options, warrants and other convertible securities that would otherwise expire during the Lock-Up Period and (ii) up to an aggregate of 100,000 shares of Common Stock, subject to appropriate adjustments in the event of any stock dividend, stock split, combination or other similar recapitalization affecting the Common Stock, held by the Subject Parties.

In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Registrable Securities of a Holder (and the shares or securities of every other person subject to the foregoing restriction) until the end of such period.

Notwithstanding the foregoing, the obligations described in this Section 8.12 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms which may be promulgated in the future, or a registration relating solely to a SEC Rule 145 transaction on Form S-4 or similar forms which may be promulgated in the future.

**8.14 Restrictions on Transfer.** The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred to a Competitor of the Company without the Company's prior written consent, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer. For the purposes of this Agreement, "Competitor" shall mean an operating entity whose business is the research, development, manufacture, commercialization or marketing of pharmaceutical products. Any roll-up, merger or consolidation of Lilly Ventures with or into Eli Lilly & Co. ("Lilly") or an Affiliate of Lilly that would qualify as a Competitor under the foregoing definition shall not be considered a transfer of Preferred Stock or Registrable Securities for purposes of this Section 8.14, provided that in no event shall (i) information received by Lilly Ventures Fund I LLC or its successors or assigns pursuant to Section 6.1 and 6.2 hereof or (ii) inspection rights to which such parties are entitled pursuant to Section 6.3 hereof be provided or transferred to any individual having as a substantial portion of his or her daily responsibilities the research, development, acquisition, licensing or commercialization of pharmaceutical products that are competitive with the products then being developed by the Company.

**8.15 Termination of Registration Rights.** No Holder shall be entitled to exercise any right provided for in this Section 8 following the earliest to occur of:

(a) when all of such Holder's Registrable Securities have been sold;

(b) when (i) the Company has completed its IPO, and (ii) all of such Holder's (and its affiliates') Registrable Securities may be sold without restriction under SEC Rule 144; and

(c) the fifth anniversary of the IPO.

## **9. Transfers and Assignment.**

### **9.1 Assignment of Certain Rights.**

(a) Subject to Section 8.14, the rights granted to the Preferred Investors under Sections 6, 7 and 8 of this Agreement may be transferred or assigned (subject to the terms of this Agreement and with all related obligations) in connection with a transfer or assignment of Preferred Stock or Registrable Securities to (i) any other Preferred Investor or any current or former general or limited partner, retired partner, member, shareholder, parent, child, spouse, trust or other Affiliate (as defined in the Act) of any Preferred Investor or (ii) any other person or entity that acquires at least twenty five percent (25%) of the transferor's Registrable Securities; provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Preferred Stock or Registrable Securities with respect to which such rights are being transferred, and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including without limitation the provisions of Section 8.13 and 8.14.

(b) Subject to Section 8.14, the rights granted to the Founder Holders under Section 8 of this Agreement may be transferred or assigned to Permitted Transferees in accordance with Section 8.1(g) above.

9.2 Subsequent Transfers. A transferee to whom rights are transferred pursuant to this Section 9 may not again transfer such rights to any other person or entity, other than as provided in Section 9.1 above.

**10. Confidentiality.** Each Holder agrees that such Holder shall keep confidential and shall not disclose or use (other than to monitor its investment in the Company) this Agreement and all Schedules and Exhibits hereto, the Financing Agreements, and all other documents delivered in connection with the Closing, and also any confidential, proprietary, or secret information that it has or may obtain from the Company, unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 10 by such Holder), (b) is or has been independently developed or conceived by the Holder without use of the Company's confidential information, or (c) is or has been made known or disclosed to the Holder by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that a Holder may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company and negotiating the terms thereof; (ii) to any prospective purchaser of any Registrable Securities from such Holder, if such prospective purchaser agrees to be bound by the provisions of this Section 10; (iii) to any Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Holder in the ordinary course of business, provided that such Holder informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, court order or subpoena, provided that the Holder promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

## **11. Miscellaneous.**

11.1 Survival of Representations and Warranties. The warranties, representations, and covenants of the Company and the Purchasers contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing. Notwithstanding the right of the Company and the Purchasers to fully investigate the affairs of the other party and notwithstanding any knowledge of facts determined or determinable by such party pursuant to such investigation or right of investigation, each party has the right to rely fully upon the representations, warranties, covenants and agreements of each other party in this Agreement or in any Schedule, certificate or financial statement delivered by any party pursuant hereto.

11.2 Termination of Certain Provisions. The obligations of the Company set forth in Sections 6 and 7 shall terminate upon the closing of a firm commitment underwritten public offering pursuant to an effective registration statement under the Act, covering the offer and sale of Common Stock for the account of the Company to the public, provided such offering has been approved by the Board, including a majority of the Preferred Directors.

11.3 Expenses. Except as otherwise expressly provided in this Agreement, each of the Parties will bear its own expenses in connection with the preparation of the Financing Documents and the consummation of the transactions contemplated thereby. Notwithstanding the foregoing, the Company agrees to pay the fees and expenses of counsel to the Purchasers incurred in connection with such counsel's due diligence review of the Company, the negotiation and execution of the Financing Agreements and the consummation of the transactions contemplated thereby in an aggregate amount not to exceed \$5,000.

11.4 Successors and Assigns. Except as otherwise provided herein, the terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the Company and the Holders (including transferees of any shares of Preferred Stock or any Common Stock issued upon conversion thereof, and the Permitted Transferees of the Founder Holders with respect to their rights and obligations under Section 8 hereof). Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

11.5 Governing Law. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the state of Delaware without regard to its principles of conflicts of laws.

11.6 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may be executed by facsimile signature or by a pdf of similar attachment to an electronic transmission.

11.7 Construction. A reference to a Section or Schedule shall mean a Section in or Schedule to this Agreement unless otherwise expressly stated. The titles and headings herein are for reference purposes only and shall not in any manner limit the construction of this Agreement

which shall be considered as a whole. The words “include,” “includes” and “including” when used herein shall be deemed in each case to be followed by the words “without limitation.” Whenever the context may require, any pronouns used herein shall include the corresponding masculine, feminine or neuter forms, and the singular form of names and pronouns shall include the plural and vice-versa.

11.8 Notices. All notices, requests, consents, and other communications under this Agreement shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after the business day of deposit with a nationally recognized overnight courier, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties as follows:

If to the Company:

Cerulean Pharma Inc.  
840 Memorial Drive  
Cambridge, MA 02139  
Attn: Oliver Fetzter, President and Chief Executive Officer  
Fax: 617-494-1544

With a copy to:

Cerulean Pharma Inc.  
840 Memorial Drive  
Cambridge, MA 02139  
Attn: Jean Silveri, SVP and General Counsel  
Fax: 617-494-1544

and

Lia Der Marderosian, Esq.  
WilmerHale LLP  
60 State Street  
Boston, MA 02109  
Fax: 617-526-5000

If to the Preferred Holders, to their respective addresses set forth on Schedule 1 to this Agreement.

If to the Holders, to their respective addresses set forth Schedule 2 to this Agreement.

Any party may change its address or facsimile number at any time upon written notice as provided in this Section.

11.9 Brokers. The Company and the Purchasers, each severally and not jointly, (i) represent and warrant to the other parties hereto that it has retained no finder or broker in connection with the transactions contemplated by this Agreement and (ii) shall indemnify and hold harmless the other parties from and against any and all claims, liabilities, or obligations with respect to brokerage or finders' fees or commissions or consulting fees in connection with the transactions contemplated by this Agreement, asserted by any person on the basis of any statement or representation alleged to have been made by such indemnifying party.

11.10 Amendments and Waivers. Except as otherwise expressly set forth in this Agreement, any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), with the written consent of the Company and the holders of more than sixty percent (60%) of the then outstanding shares of Series D Stock being sold pursuant to this Agreement or shares of Common Stock issued upon conversion thereof; provided, however, (i) Sections 6 and 7 may be amended and the observance of any term of such sections may be waived with the written consent of the Company and holders of more than fifty-eight percent (58%) of the then outstanding voting shares of Preferred Stock or voting shares of Common Stock issued upon conversion thereof and (ii) the subsections of Sections 8 and 9 may be amended and the observance of any term of such subsection may be waived, with the written consent of the Company and the holders of more than fifty-eight percent (58%) of the Outstanding Registrable Securities held by holders entitled to rights, or subject to obligations, under such subsection, in each case, either generally or in a particular instance and either retroactively or prospectively; further provided, however, that (a) no Purchaser shall, without its consent, be adversely affected by any such amendment or waiver in any manner in which the other Purchasers are not likewise adversely affected, and (b) any waiver of Section 7 (Participation Rights) of this Agreement that is made in connection with a transaction in which any Purchaser or its affiliates, by agreement with the Company, purchases New Securities outside of the provisions of this Agreement shall be ineffective unless each Purchaser is afforded a similar opportunity to participate in such transaction (on the same terms and conditions) by purchasing at least such Purchaser's Pro Rata Share of the New Securities sold by the Company in such transaction. Any amendment, termination, or waiver effected in accordance with this Section 11.10 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition, or provision.

11.11 Severability. If one or more provisions of this Agreement are held to be invalid, illegal or unenforceable under applicable law, it shall, as to such jurisdiction, be deemed modified to conform to the minimum requirements of such law or regulation, or, if for any reason it is not deemed so modified, it shall be invalid, illegal or unenforceable only to the extent of such invalidity, illegality or limitation on enforceability without affecting the remaining provisions of this Agreement, or the validity, legality or enforceability of such provision in any other jurisdiction.

11.12 Aggregation of Stock. All shares of Registrable Securities, Preferred Stock or Common Stock held or acquired by Purchasers or Holders shall be aggregated together with the Registrable Securities, Preferred Stock or Common Stock held or acquired by any entity with

which such Purchaser or Holder is affiliated for the purpose of determining the availability of any rights under this Agreement.

11.13 Entire Agreement. This Agreement and the documents referred to herein constitute the entire agreement among the parties relating to the subject matter set forth herein and therein, and supersede any other agreement, written or oral, among the parties relating to such subject matter, including, without limitation, Sections 6, 7, 8 and 9 of (i) that certain Seed Convertible Preferred Stock Purchase Agreement dated December 28, 2006, (ii) that certain Series A Convertible Preferred Stock Purchase Agreement dated May 8, 2007, (iii) that certain Series B Convertible Preferred Stock Purchase Agreement dated December 7, 2007, as amended, (iv) that certain Series B-1 Convertible Preferred Stock Purchase Agreement dated July 13, 2009, (v) that certain Series C Convertible Preferred Stock Purchase Agreement dated November 12, 2010 and (vi) that certain Series D Convertible Preferred Stock Purchase Agreement dated December 2, 2011, which provisions are hereby terminated and extinguished and no longer in force or effect. No party shall be liable or bound to any other party in any manner relating to the subject matter set forth herein or therein by any warranties, representations, or covenants except as specifically set forth herein or therein.

11.14 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party upon any breach or default of another party under this Agreement shall impair any such right, power or remedy of such party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any holder of any breach or default under this Agreement, or any waiver on the part of any holder of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party shall be cumulative and not alternative.

*[Signature pages follow.]*

IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Company:**

CERULEAN PHARMA INC.

By: /s/ Jean Silveri

Name: Jean Silveri

Title: Senior Vice President, General Counsel and Secretary

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*



IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

CVF, LLC

By: /s/ Richard H. Robb

Name: Richard H. Robb

Title: Manager

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

LILLY VENTURES FUND I LLC

By: /s/ S. Edward Torres  
S. Edward Torres, Managing Director

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

VENROCK ASSOCIATES V, L.P

By: Venrock Management V, LLC  
Its: General Partner

VENROCK PARTNERS V, L.P.

By: Venrock Partners Management V, LLC  
Its: General Partner

VENROCK ENTREPRENEURS FUND V, L.P.

By: VEF Management V, LLC  
Its: General Partner

By: /s/ Bryan E. Roberts  
\_\_\_\_\_  
Authorized Signatory

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

POLARIS VENTURE PARTNERS V, L.P.

By: Polaris Venture Management Co. V, L.L.C.,  
its General Partner

By: /s/ William E. Bilodeau  
William E. Bilodeau Attorney-in-fact

POLARIS VENTURE PARTNERS  
ENTREPRENEURS' FUND V, L.P.

By: Polaris Venture Management  
Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau  
William E. Bilodeau Attorney-in-fact

POLARIS VENTURE PARTNERS FOUNDERS'  
FUND V, L.P.

By: Polaris Venture Management  
Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau  
William E. Bilodeau Attorney-in-fact

POLARIS VENTURE PARTNERS SPECIAL  
FOUNDERS' FUND V, L.P.

By: Polaris Venture Management  
Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau  
William E. Bilodeau Attorney-in-fact

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

POLARIS VENTURE PARTNERS IV, L.P.

By: Polaris Venture Management  
Co. IV, L.L.C., its General Partner

By: /s/ William E. Bilodeau  
\_\_\_\_\_  
William E. Bilodeau  
Attorney-in-fact

POLARIS VENTURE PARTNERS  
ENTREPRENEURS' FUND IV, L.P.

By: Polaris Venture Management  
Co. IV, L.L.C., its General Partner

By: /s/ William E. Bilodeau  
\_\_\_\_\_  
William E. Bilodeau  
Attorney-in-fact

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

LUX VENTURES II SIDECAR, L.P.

By: Lux Venture Partners II, L.P.  
*its General Partner*  
By: Lux Venture Associates II, LLC  
*its General Partner*  
By: Lux Capital Management, LLC  
*its Sole Member*

By: /s/ Robert Paull  
Name: Robert Paull  
Title: Managing Director

LUX VENTURES II, L.P.

By: Lux Venture Partners II, L.P.  
*its General Partner*  
By: Lux Venture Associates II, LLC  
*its General Partner*  
By: Lux Capital Management, LLC  
*its Sole Member*

By: /s/ Robert Paull  
Name: Robert Paull  
Title: Managing Director

LUX VENTURES II PARTNERS FUND I LLC

By: Lux Venture Partners II, L.P.,  
*its Manager*  
By: Lux Venture Associates II, LLC,  
*its General Partner*  
By: Lux Capital Management, LLC,  
*its Sole Member*

By: /s/ Robert Paull  
Name: Robert Paull  
Title: Managing Director

[Signature Page to Second Series D Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

BESSEMER VENTURE PARTNERS VII L.P.  
BESSEMER VENTURE PARTNERS VII  
INSTITUTIONAL L.P.

By: Deer VII & Co. L.P., their General Partner

By: Deer VII & Co. Ltd., its General Partner

By: /s/ J. Edmund Colloton

J. Edmund Colloton, Director

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

WILLIAM RASTETTER AND MARISA G.  
RASTETTER AS COMMUNITY PROPERTY

/s/ William Rastetter

William Rastetter

/s/ Marisa G. Rastetter

Marisa G. Rastetter

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*



IN WITNESS WHEREOF, the parties have executed this Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

ALEXANDRIA EQUITIES, LLC, a Delaware  
limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, INC.,  
a Maryland corporation, managing  
member

By: /s/ Dean Shigenaga

Name: Dean Shigenaga

Title: CFO

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*

ACCEPTED AND AGREED TO AS TO  
THE PROVISIONS OF SECTIONS 8, 9 and 10:

/s/ Alan L. Crane  
Alan L. Crane

/s/ Ram Sasisekharan  
Ram Sasisekharan

/s/ Shiladitya Sengupta  
Shiladitya Sengupta

/s/ Alexandra Glucksmann  
Alexandra Glucksmann

Crane Family Irrevocable Trust – 2002

By: /s/ Howard Crane  
Name: Howard Crane  
Title: \_\_\_\_\_

*[Signature Page to Second Series D Preferred Stock Purchase Agreement]*

**AMENDMENT NO. 1 TO  
SECOND SERIES D CONVERTIBLE PREFERRED STOCK  
PURCHASE AGREEMENT**

This Amendment No. 1 (the “**Amendment**”) to the Second Series D Convertible Preferred Stock Purchase Agreement (the “**Agreement**”), dated as of November 30, 2012, by and among Cerulean Pharma Inc., a Delaware corporation (the “**Company**”), and the Purchasers and Holders party thereto, is entered into this 11th day of January, 2013, by and among the Company and the undersigned Purchasers. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Agreement.

WHEREAS, the Company desires to increase the number of shares authorized for issuance under its 2007 Stock Incentive Plan, as amended to date, from 15,900,000 to 16,900,000; and

WHEREAS, (i) the Company and (ii) holders of more than fifty-eight percent (58%) of the currently outstanding voting shares of Preferred Stock or voting shares of Common Stock issued upon conversion thereof desire to modify the terms of the Agreement as set forth herein.

NOW, THEREFORE, in consideration of the premises and the mutual covenants set forth herein, the parties hereto hereby agree as follows:

1. Section 7.1(B). Section 7.1(B) of the Agreement is hereby deleted in its entirety and replaced with the following:

“(A) shares of Common Stock or Options to purchase shares of Common Stock, up to an aggregate of 16,900,000 shares of Common Stock, issued to officers, directors or employees of, or consultants or advisors to, the Company or any of its subsidiaries pursuant to any stock purchase or option plan or other employee or director stock incentive or compensation agreement or program (each, a “Plan”) approved by the Board, including a majority of the Preferred Directors;”

2. Except as specifically set forth herein, no other portion of the Agreement is hereby amended.

3. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Amendment may be executed by facsimile signature or by a pdf or similar attachment to an electronic transmission.

4. This Amendment shall be governed by, and construed and enforced in accordance with, the laws of the state of Delaware, without regard to its principles of conflict of laws.

5. This Amendment shall become effective upon execution by (i) the Company and (ii) holders of more than fifty-eight percent (58%) of the currently outstanding voting shares of Preferred Stock or voting shares of Common Stock issued upon conversion thereof.

*[Remainder of page intentionally left blank.]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Company:**

CERULEAN PHARMA INC.

By:     /s/ Jean M. Silveri    

Name: Jean Silveri

Title: Senior Vice President, General Counsel and Secretary

*[Signature Page to Amendment No. 1 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

LILLY VENTURES FUND I LLC

By: /s/ S. Edward Torres  
S. Edward Torres, Managing Director

*[Signature Page to Amendment No. 1 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

VENROCK ASSOCIATES V, L.P

By: Venrock Management V, LLC  
Its: General Partner

VENROCK PARTNERS V, L.P.

By: Venrock Partners Management V, LLC  
Its: General Partner

VENROCK ENTREPRENEURS FUND V, L.P.

By: VEF Management V, LLC  
Its: General Partner

By: /s/ Bryan E. Roberts  
Authorized Signatory

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*[Signature Page to Amendment No. 1 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

POLARIS VENTURE PARTNERS V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau  
Attorney-in-fact

POLARIS VENTURE PARTNERS ENTREPRENEURS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau  
Attorney-in-fact

POLARIS VENTURE PARTNERS FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau  
Attorney-in-fact

POLARIS VENTURE PARTNERS SPECIAL FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau  
Attorney-in-fact

*[Signature Page to Amendment No. 1 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

POLARIS VENTURE PARTNERS IV, L.P.

By: Polaris Venture Management Co. IV, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau

Attorney-in-fact

POLARIS VENTURE PARTNERS ENTREPRENEURS' FUND IV, L.P.

By: Polaris Venture Management Co. IV, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau

Attorney-in-fact

*[Signature Page to Amendment No. 1 to Second Series D Preferred Stock Purchase Agreement]*



IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

BESSEMER VENTURE PARTNERS VII L.P.  
BESSEMER VENTURE PARTNERS VII INSTITUTIONAL L.P.

By: Deer VII & Co. L.P., their General Partner  
By: Deer VII & Co. Ltd., its General Partner

By: /s/ J. Edmund Colloton  
\_\_\_\_\_  
J. Edmund Colloton, Director

*[Signature Page to Amendment No. 1 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No.1 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

WILLIAM RASTETTER AND MARISA G. RASTETTER AS  
COMMUNITY PROPERTY

/s/ William Rastetter

William Rastetter

/s/ Marisa G. Rastetter

Marisa G. Rastetter

*[Signature Page to Amendment No. 1 to Second Series D Preferred Stock Purchase Agreement]*

**AMENDMENT NO. 2 TO  
SECOND SERIES D CONVERTIBLE PREFERRED STOCK  
PURCHASE AGREEMENT**

This Amendment No. 2 (the “**Amendment**”) to the Second Series D Convertible Preferred Stock Purchase Agreement (the “**Agreement**”), dated as of November 30, 2012, by and among Cerulean Pharma Inc., a Delaware corporation (the “**Company**”), and the Purchasers and Holders party thereto, is entered into this 19th day of February, 2013, by and among the Company and the undersigned Purchasers. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Agreement.

WHEREAS, the Company desires to increase the number of shares authorized for issuance under its 2007 Stock Incentive Plan, as amended to date, from 16,900,000 to 18,200,000; and

WHEREAS, (i) the Company and (ii) holders of more than fifty-eight percent (58%) of the currently outstanding voting shares of Preferred Stock or voting shares of Common Stock issued upon conversion thereof desire to modify the terms of the Agreement as set forth herein.

NOW, THEREFORE, in consideration of the premises and the mutual covenants set forth herein, the parties hereto hereby agree as follows:

1. Section 7.1(B). Section 7.1(B) of the Agreement is hereby deleted in its entirety and replaced with the following:

“(A) shares of Common Stock or Options to purchase shares of Common Stock, up to an aggregate of 18,200,000 shares of Common Stock, issued to officers, directors or employees of, or consultants or advisors to, the Company or any of its subsidiaries pursuant to any stock purchase or option plan or other employee or director stock incentive or compensation agreement or program (each, a “Plan”) approved by the Board, including a majority of the Preferred Directors;”

2. Except as specifically set forth herein, no other portion of the Agreement is hereby amended.

3. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Amendment may be executed by facsimile signature or by a pdf or similar attachment to an electronic transmission.

4. This Amendment shall be governed by, and construed and enforced in accordance with, the laws of the state of Delaware, without regard to its principles of conflict of laws.

5. This Amendment shall become effective upon execution by (i) the Company and (ii) holders of more than fifty-eight percent (58%) of the currently outstanding voting shares of Preferred Stock or voting shares of Common Stock issued upon conversion thereof.

*[Remainder of page intentionally left blank.]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Company:**

CERULEAN PHARMA INC.

By:  /s/ Jean Silveri

Name: Jean Silveri

Title: Senior Vice President, General Counsel and Secretary

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

CVF, LLC

By: /s/ Richard H. Robb

Name: Richard H. Robb

Title: Manager

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

LILLY VENTURES FUND I LLC

By: /s/ S. Edward Torres  
S. Edward Torres, Managing Director

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

VENROCK ASSOCIATES V, L.P

By: Venrock Management V, LLC  
Its: General Partner

VENROCK PARTNERS V, L.P.

By: Venrock Partners Management V, LLC  
Its: General Partner

VENROCK ENTREPRENEURS FUND V, L.P.

By: VEF Management V, LLC  
Its: General Partner

By: /s/ Bryan E. Roberts  
Authorized Signatory

---

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

POLARIS VENTURE PARTNERS V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau  
Attorney-in-fact

POLARIS VENTURE PARTNERS ENTREPRENEURS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau  
Attorney-in-fact

POLARIS VENTURE PARTNERS FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau  
Attorney-in-fact

POLARIS VENTURE PARTNERS SPECIAL FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau  
Attorney-in-fact

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*



IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

POLARIS VENTURE PARTNERS IV, L.P.

By: Polaris Venture Management Co. IV, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau

Attorney-in-fact

POLARIS VENTURE PARTNERS ENTREPRENEURS' FUND IV, L.P.

By: Polaris Venture Management Co. IV, L.L.C., its General Partner

By: /s/ William E. Bilodeau

William E. Bilodeau

Attorney-in-fact

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

LUX VENTURES II SIDECAR, L.P.

LUX VENTURES II, L.P.

By: Lux Venture Partners II, L.P.  
*its General Partner*

By: Lux Venture Partners II, L.P.  
*its General Partner*

By: Lux Venture Associates II, LLC  
*its General Partner*

By: Lux Venture Associates II, LLC  
*its General Partner*

By: Lux Capital Management, LLC  
*its Sole Member*

By: Lux Capital Management, LLC  
*its Sole Member*

By: /s/ Robert Paull

By: /s/ Robert Paull

Name: Robert Paull

Name: Robert Paull

Title: Managing Director

Title: Managing Director

LUX VENTURES II PARTNERS FUND I LLC

By: Lux Venture Partners II, L.P.,  
*its Manager*

By: Lux Venture Associates II, LLC,  
*its General Partner*

By: Lux Capital Management, LLC,  
*its Sole Member*

By: /s/ Robert Paull

Name: Robert Paull

Title: Managing Director

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

BESSEMER VENTURE PARTNERS VII L.P.  
BESSEMER VENTURE PARTNERS VII INSTITUTIONAL L.P.

By: Deer VII & Co. L.P., their General Partner  
By: Deer VII & Co. Ltd., its General Partner

By:  /s/ J. Edmund Colloton  
J. Edmund Colloton, Director

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

WILLIAM RASTETTER AND MARISA G.  
RASTETTER AS COMMUNITY PROPERTY

/s/ William Rastetter  
\_\_\_\_\_  
William Rastetter

/s/ Marisa G. Rastetter  
\_\_\_\_\_  
Marisa G. Rastetter

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

ALEXANDRIA EQUITIES, LLC, a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, INC., a Maryland corporation,  
managing member

By: /s/ Dean A. Shigenaga

Name: Dean A. Shigenaga

Title: Executive Vice President Chief Financial Officer

*[Signature Page to Amendment No. 2 to Second Series D Preferred Stock Purchase Agreement]*

**AMENDMENT NO. 3 TO  
SECOND SERIES D CONVERTIBLE PREFERRED STOCK  
PURCHASE AGREEMENT**

This Amendment No. 3 (the “**Amendment**”) to the Second Series D Convertible Preferred Stock Purchase Agreement, as amended to date (the “**Agreement**”), dated as of November 30, 2012, by and among Cerulean Pharma Inc., a Delaware corporation (the “**Company**”), and the Purchasers and Holders party thereto, is entered into this 6th day of March, 2014, by and among the Company and the undersigned Purchasers. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Agreement.

WHEREAS, the Company desires to increase the number of shares authorized for issuance under its 2007 Stock Incentive Plan, as amended to date, from 18,200,000 to 18,500,000; and

WHEREAS, (i) the Company and (ii) holders of more than fifty-eight percent (58%) of the currently outstanding voting shares of Preferred Stock or voting shares of Common Stock issued upon conversion thereof desire to modify the terms of the Agreement as set forth herein.

NOW, THEREFORE, in consideration of the premises and the mutual covenants set forth herein, the parties hereto hereby agree as follows:

1. Section 7.1(B). Section 7.1(B) of the Agreement is hereby deleted in its entirety and replaced with the following:

“(A) shares of Common Stock or Options to purchase shares of Common Stock, up to an aggregate of 18,500,000 shares of Common Stock, issued to officers, directors or employees of, or consultants or advisors to, the Company or any of its subsidiaries pursuant to any stock purchase or option plan or other employee or director stock incentive or compensation agreement or program (each, a “Plan”) approved by the Board, including a majority of the Preferred Directors;”

2. Except as specifically set forth herein, no other portion of the Agreement is hereby amended.

3. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Amendment may be executed by facsimile signature or by a pdf or similar attachment to an electronic transmission.

4. This Amendment shall be governed by, and construed and enforced in accordance with, the laws of the state of Delaware, without regard to its principles of conflict of laws.

5. This Amendment shall become effective upon execution by (i) the Company and (ii) holders of more than fifty-eight percent (58%) of the currently outstanding voting shares of Preferred Stock or voting shares of Common Stock issued upon conversion thereof.

*[Remainder of page intentionally left blank.]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Company:**

CERULEAN PHARMA INC.

By: /s/ Oliver S. Fetzer

Name: Oliver S. Fetzer

Title: President and Chief Executive Officer

*[Signature Page to Amendment No. 3 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

CVF, LLC

By: /s/ Richard H. Robb

Name: Richard H. Robb

Title: Manager

*[Signature Page to Amendment No. 3 to Second Series D Preferred Stock Purchase Agreement]*



IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

LILLY VENTURES FUND I LLC

By: /s/ S. Edward Torres

S. Edward Torres, Managing Director

*[Signature Page to Amendment No. 3 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

VENROCK ASSOCIATES V, L.P.

By: Venrock Management V, LLC  
Its: General Partner

VENROCK PARTNERS V, L.P.

By: Venrock Partners Management V, LLC  
Its: General Partner

VENROCK ENTREPRENEURS FUND V, L.P.

By: VEF Management V, LLC  
Its: General Partner

By: Bryan E. Roberts

Authorized Signatory

*[Signature Page to Amendment No. 3 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

POLARIS VENTURE PARTNERS V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ John J. Gannon  
John J. Gannon  
Attorney-in-fact

POLARIS VENTURE PARTNERS ENTREPRENEURS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ John J. Gannon  
John J. Gannon  
Attorney-in-fact

POLARIS VENTURE PARTNERS FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ John J. Gannon  
John J. Gannon  
Attorney-in-fact

POLARIS VENTURE PARTNERS SPECIAL FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C., its General Partner

By: /s/ John J. Gannon  
John J. Gannon  
Attorney-in-fact

*[Signature Page to Amendment No. 3 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

POLARIS VENTURE PARTNERS IV, L.P.

By: Polaris Venture Management Co. IV, L.L.C., its General Partner

By: /s/ John J. Gannon

John J. Gannon

Attorney-in-fact

POLARIS VENTURE PARTNERS ENTREPRENEURS' FUND IV, L.P.

By: Polaris Venture Management Co. IV, L.L.C., its General Partner

By: /s/ John J. Gannon

John J. Gannon

Attorney-in-fact

*[Signature Page to Amendment No. 3 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

LUX VENTURES II SIDECAR, L.P.

By: Lux Venture Partners II, L.P.  
*its General Partner*

By: Lux Venture Associates II, LLC  
*its General Partner*

By: Lux Capital Management, LLC  
*its Sole Member*

By: /s/ Robert Paull

Name: Robert Paull

Title: Managing Director

LUX VENTURES II, L.P.

By: Lux Venture Partners II, L.P.  
*its General Partner*

By: Lux Venture Associates II, LLC  
*its General Partner*

By: Lux Capital Management, LLC  
*its Sole Member*

By: /s/ Robert Paull

Name: Robert Paull

Title: Managing Director

LUX VENTURES II PARTNERS FUND I LLC

By: Lux Venture Partners II, L.P.,  
*its Manager*

By: Lux Venture Associates II, LLC,  
*its General Partner*

By: Lux Capital Management, LLC,  
*its Sole Member*

By: /s/ Robert Paull

Name: Robert Paull

Title: Managing Director

*[Signature Page to Amendment No. 3 to Second Series D Preferred Stock Purchase Agreement]*

IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to Second Series D Convertible Preferred Stock Purchase Agreement as of the date first written above.

**The Purchasers:**

WILLIAM RASTETTER AND MARISA G. RASTETTER AS  
COMMUNITY PROPERTY

/s/ William Rastetter

William Rastetter

/s/ Marisa G. Rastetter

Marisa G. Rastetter

*[Signature Page to Amendment No. 3 to Second Series D Preferred Stock Purchase Agreement]*

**INDENTURE OF LEASE**

*by and between*

**RIVERTECH ASSOCIATES II, LLC**

**(“LESSOR”)**

*and*

**CERULEAN PHARMA INC.**

**(“LESSEE”)**

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**RIVERSIDE TECHNOLOGY CENTER**

**840 Memorial Drive  
Cambridge, Massachusetts**

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**RIVERSIDE TECHNOLOGY CENTER**

**COMMERCIAL LEASE**

**BETWEEN**

**RIVERTECH ASSOCIATES II, LLC**

**AND**

**CERULEAN PHARMA INC.**

Agreement entered into this 8<sup>th</sup> day of September 2009 in consideration of the covenants and other benefits herein contained, the receipt and sufficiency of said consideration being hereby acknowledged.

**Rivertech Associates II, LLC**, a Massachusetts limited liability corporation, c/o The Abbey Group, 575 Boylston Street, Boston, MA 02116 (herein "LESSOR"), does hereby lease to and **Cerulean Pharma Inc.** a Delaware corporation duly qualified to conduct business in Massachusetts, having its principal place of business at 161 First Street, Suite 2A, Cambridge, MA 02142 (herein "LESSEE"), does hereby lease from said LESSOR, certain space located at 840 Memorial Drive, Cambridge, Massachusetts (herein "Building") being that portion of the fifth (5<sup>th</sup>) floor of the Building consisting of approximately 14,168 rentable square feet of space, and that portion of the fourth (4<sup>th</sup>) floor of the Building consisting of approximately 66 rentable square feet of space, for a combination of approximately 14,234 rentable square feet of space, all as shown on Exhibit A attached hereto (herein, "Lease Plan") and all comprising the "Leased Premises" or "Premises" hereunder; with the right in common with others in the Building to use such common areas of the Building and the property on which the Building is located as are designated by the LESSOR, from time to time including but not limited to the 5<sup>th</sup> and 4<sup>th</sup> floor common lavatories; shared loading dock; shared passenger and freight elevators; and common stairways, corridors, walkways, driveways and lobbies.

**1. Lease Term.** LESSOR shall deliver the Leased Premises to the LESSEE vacant but with LESSOR's Build-Out (as defined in Section 32) substantially completed as set forth in Section 32 hereof, the date of delivery being referred to herein as the "Delivery Date".

LESSEE leases the Leased Premises for an original Term consisting of an "Interim Period (as defined below) and thereafter running forty (40) consecutive months (herein, "Lease Term"). The Term of the Lease shall begin on the earlier to occur of: (i) Tenant's occupancy for the purpose of the conduct of its business or (ii) the Delivery Date. LESSEE shall have the right of early access to perform LESSEE's work as set forth in



Section 32. The portion of the calendar month between the beginning of the Term and the first day of the next calendar month (if the beginning of the Term occurs other than on the 1<sup>st</sup> of a month) is referred to herein as the "Interim Period", with the first day of said next calendar month being the "Commencement Date". Therefore, with Interim Period, the Term shall end on the last day of the calendar month which is forty (40) full months from the Commencement Date, referred to herein as the "Termination Date". The first Lease Year shall begin on the Commencement Date, and each successive Lease Year shall be the next twelve full month period after the end of the First Lease Year. By way of illustration, if the Interim Period starts November 15, 2009 then: (i) the Commencement Date shall be December 1, 2009; (iii) the First Lease Year shall begin on December 1, 2009 and shall conclude on November 30, 2010; the Second Lease Year shall begin on December 1, 2010 and conclude on November 30, 2011; the Third Lease Year shall begin on December 1, 2011 and conclude on November 30, 2012; and the Fourth Lease Year shall begin on December 1, 2012 and the Termination Date would be March 30, 2013.

LESSOR agrees to use commercially reasonable efforts to substantially complete LESSOR's Build-Out on or before November 1, 2009, but LESSOR shall incur no liability, nor shall there be any abatement of Annual Base Rent or other payments due hereunder, if the Delivery Date occurs subsequent to said target date; provided, however, that in the event that the Delivery Date (as defined in Section 32) has not occurred on or before December 1, 2009 for whatever reason (the "Outside Termination Date"), then LESSEE shall have the right to terminate this Lease by written notice to LESSOR delivered within 15 business days after the Outside Termination Date, and in such event the Lease shall be deemed to be terminated if the Delivery Date has not occurred by December 31, 2009 (absent separate written agreement of the parties).

The Term may be extended as contemplated by Section 33 hereof.

**2. Annual Base Rent and Additional Rent.** Subject to the provisions hereof, commencing on the Commencement Date, LESSEE shall pay to LESSOR an Annual Base Rent pursuant to the schedule below during each Lease Year (or portion thereof as the case may be) of the Term hereof, (herein, "Annual Base Rent"). Annual Base Rent shall be payable in advance, in equal monthly installments, due on the first day of each calendar month, pursuant to the schedule below.

LESSEE's first payment of Annual Base Rent for the first month of the First Lease Year and LESSEE's payment of Annual Base Rent for the Interim Period (if any), which shall be calculated by multiplying the number of days in the Interim Period (i.e. starting with the beginning of the Term through the last day of the month prior to the Commencement Date by an applicable per diem rate (reflecting Annual Base Rent for the First Lease Year on an annualized basis) shall both be due on the Delivery Date.

All payments of Annual Base Rent (and any Additional Rent or other sums due LESSOR) shall be made to LESSOR at 575 Boylston Street, Boston, Massachusetts

02116 or to such other agent or at such other place as LESSOR may designate in writing. The covenants to pay all Annual Base Rent and all Additional Rent hereunder (collectively, "Rent") shall be independent from any and all other covenants of LESSOR to LESSEE hereunder; and all Rent shall be promptly paid when due stated hereunder.

LESSEE shall pay interest from the date due, at annual rate of eighteen (18) percent of any installments of Annual Base Rent, or Additional Rent or other payments which are not received by LESSOR within ten days after written notice from LESSOR that any such Rent was not received.

**SCHEDULE OF ANNUAL BASE RENT**

<u>Lease Year</u>	<u>Annual Base Rent</u>	<u>Monthly Installment</u>
First Lease Year	\$ 378,624.40	\$ 31,552.03
Second Lease Year	\$ 562,243.00	\$ 46,853.58
Third Lease Year	\$ 583,594.00	\$ 48,632.83
Fourth Lease Year*	\$ 199,276.00	\$ 49,819.00

(\*reflecting four months only)

This Lease is intended to be a triple net lease, and as such LESSEE shall also be responsible for payment of its pro rata share of Operating Expenses (see Section 3 herein), real estate taxes (see Section 4 herein) and utilities (see Section 7 herein), all in accordance with the terms and conditions herein. All payments due to LESSOR hereunder in addition to those under Section 2 shall be deemed to be "Additional Rent".

LESSEE's allocable pro rata share is 11.04 % (the LESSEE's "Allocable Percentage") as that concept is applicable and used herein, which Allocable Percentage is determined by dividing Building square footage of 128,920 square feet by the Leased Premises square footage of 14,234 square feet. Notwithstanding the foregoing for the Interim Period and the First Lease Year (only) the Allocable Percentage shall be deemed to be 9.39%, which Allocable Percentage is determined by dividing Building square footage of 128,920 square feet by 12,100 square feet.

**3. Additional Rent (Operating Expenses).** LESSEE, in addition to the sums payable to LESSOR as Annual Base Rent as determined in Section 2 hereof shall pay to LESSOR for each year (or portion thereof, as applicable) of the Lease Term, as Additional Rent, LESSEE'S Allocable Percentage of any and all Operating Expenses attributable to the Building for said year of the Lease Term (herein, "Additional Operating Expense Rent"). Operating Expenses as set forth in Exhibit B hereto are the unaudited actuals for calendar year 2008 (and will be subject to change based on actual costs and expenses incurred for each of the categorized Exhibit B costs and expenses in the remainder of 2009 and for each subsequent calendar year during the Extended Term).

Notwithstanding the foregoing, LESSEE shall be responsible for payment of Additional Operating Expense Rent for the Interim Period and First Lease Year (only) based on 12,100 rentable square feet (vis a vis 14, 234 rentable square feet for the remainder of the Term).

“Operating Expenses” means the costs incurred by the LESSOR in connection with the operation, management and maintenance of the Building.” Operating Expenses” shall not include the following: the costs of LESSEE’S or any other tenant’s improvements and services for which LESSEE or any tenant directly reimburses LESSOR, or pays third persons at LESSOR’S directions; income or franchise taxes of the LESSOR; the costs incurred in any rehabilitation, reconstruction or other work occasioned fay any insured casualty (i.e. as to which LESSOR is required to carry insurance hereunder), or by the exercise of the right of eminent domain (except to the extent of any so-called “deductible” amount under policies of insurance or any costs actually incurred for which any insurance company does not reimburse or compensate LESSOR or Owner); depreciation or interest payments on the Building; general corporate overhead of the LESSOR entity; expenses incurred in any direct dispute with any particular tenant (other than those incurred which are of benefit to or protect the rights of other tenants in the Building, generally); costs of renovations to vacant or other tenants’ spaces; costs of capital improvements to the Building its systems and appurtenances (but not including maintenance, repairs or replacements), and any rental payments for equipment which, if purchased, would be excluded as a capital improvement under generally accepted accounting standards in LESSOR’S reasonable judgment; brokerage and advertising costs in seeking or leasing to new tenants; and penalties incurred due to LESSOR’S willful violation or any direct violation of any government order; any ground or underlying lease rental; bad debt expenses and interest, principal, points and fees on debts or amortization on any mortgage or other debt instrument encumbering the Building or the property; costs arising from LESSOR’S charitable or political contributions; costs of selling, syndicating, financing, mortgaging or hypothecating any of LESSOR’S interest in the Building; management fees paid or charged by LESSOR in connection with the management of the Building other than a management fee based on five (5%) percent of income which is the management fee uniformly and customarily charged to other tenants in the Building by LESSOR; costs and expenses (including taxes) to operate the parking garage, valet and other parking services for the Building, and any replacement garages or parking facilities and any shuttle services as may be placed in service, including any capital improvements to the parking areas.

LESSEE shall pay its Allocable Percentage of Additional Operating Expense Rent to LESSOR based on a prospective annual schedule prepared by the LESSOR, in monthly increments based on said schedule, with each monthly payment of Annual Base Rent due hereunder. LESSOR, at its discretion, may assess LESSEE for any extraordinary item of cost or expense which may actually occur as a direct result of LESSEE’s own distinct uses or activities which shall be itemized, invoiced separately, and paid by LESSEE within thirty (30) days of its receipt of the invoice. Within one hundred twenty (120) days of the close of each calendar year, LESSOR shall adjust the prior year’s schedule of

Additional Operating Expense Rent to account for actual and properly accrued costs, expenses, and liabilities, and shall issue LESSEE a refund or deficiency statement for that year, as appropriate. LESSEE shall pay any deficiency shown thereon within thirty (30) days of its receipt of said invoice. Any rebates due LESSEE (not contested by LESSOR) shall, in LESSOR's reasonable discretion, be credited toward current monthly Additional Operating Expense Rent or paid to LESSEE within thirty (30) days.

**4. Additional Rent (Real Estate Taxes).** LESSEE, in addition to the sums payable to LESSOR as Annual Base Rent as determined in Section 2 hereof, shall pay to LESSOR for each year (or portion thereof, as applicable) of the Lease Term, as Additional Rent, LESSEE'S Allocable Percentage of all sums attributable to the municipal real estate taxes on the Building and land on which it is situated ("Taxes) allocable to said year) (herein the "Additional Real Estate Tax Rent".

Notwithstanding the foregoing, LESSEE shall be responsible for payment of Real Estate Taxes for the Interim Period and First Lease Year (only) based on 12,100 rentable square feet (vis a vis 14,234 rentable square feet for the remainder of the Term).

Notwithstanding the foregoing, LESSOR shall be under no obligation to file for any abatement of taxes for FY 2009, FY 2010 or any other fiscal year, and LESSEE shall pay all amounts as invoiced by LESSOR, receiving a rebate based on its Allocable Percentage only if an abatement is sought and received by LESSOR.

LESSEE shall pay its Allocable Percentage of Additional Real Estate Tax Rent to LESSOR based on a prospective annual schedule prepared by the LESSOR, in monthly increments based on said schedule, with each monthly payment of Annual Base Rent due hereunder. Within one hundred twenty (120) days of the close of each tax year, LESSOR shall adjust the prior year's schedule of Additional Real Estate Tax Rent to account for actual and properly accrued costs, expenses, and liabilities, and shall issue LESSEE a refund or deficiency statement for that year, as appropriate. LESSEE shall pay any deficiency shown thereon within thirty (30) days of its receipt of said invoice. Any rebates due LESSEE (not contested by LESSOR) shall, in LESSOR's reasonable discretion, be credited toward current monthly Additional Real Estate Tax Rent or paid to LESSEE within thirty (30) days.

LESSOR shall keep complete books and records regarding Operating Expenses and Taxes at LESSOR's principal offices, as to which LESSEE shall be given access as contemplated below during LESSOR's normal business hours for the purpose of reviewing and copying (at LESSEE's expense). LESSEE shall retain all records of Operating Expenses and Taxes for at least three (3) years. LESSEE shall have the right to audit the applicable records of LESSOR to confirm that the charges billed to LESSEE under Sections 3 and 4 above are proper and conform to the provisions of such Sections. Such right shall be exercisable by LESSEE within one year after LESSEE's receipt of LESSOR's Operating Statement for the subject Lease Year. LESSOR shall cooperate with LESSEE in providing LESSEE reasonable access to LESSOR's books and records

during normal business hours to enable LESSEE to audit LESSOR's books and records as they relate to any costs or expenses passed through to LESSEE pursuant to any provisions of this Lease. If the audit discloses any overpayment on the part of LESSEE, then LESSEE shall be entitled to a credit on the next succeeding installment of Rent for an amount equal to the overcharge plus interest on the amount of such overcharge from the date on which same was paid by LESSEE until the date refunded by LESSOR at the prime rate then published in The Wall Street Journal, and such credit shall be extended to succeeding installments of Rent in the event such overcharge exceeds the amount of the next succeeding such installment and, in the event the term of this Lease has expired or been earlier terminated, then LESSEE shall be entitled to a refund of such excess from LESSOR within thirty (30) days after such date or expiration or earlier termination. If the audit discloses any undercharge or underpayment on the part of LESSEE, then LESSOR shall be entitled payment of that difference, to be paid with the next succeeding installment of Rent, in the amount equal to the undercharge or underpayment.

**5. Security Deposit.** Within three (3) business days after full execution and delivery of this Lease by both parties hereof, LESSEE shall post with LESSOR (and maintain at all times during the Original and Extended Term, if any), a Security Deposit in the amount of One Hundred Seventeen Thousand One Hundred Thirty Four (\$117,134.00) Dollars (the "Security Deposit Amount") as described below; which shall be held as security for LESSEE's performance as herein provided, to be returned to LESSEE at the end of this Lease Term (as may be earlier terminated or extended), unless applied by LESSOR prior thereto in the event of any uncured default by LESSEE hereunder. Failure to deliver the Security Deposit shall result in automatic termination of this Lease, time being of the essence.

The Security Deposit Amount shall be delivered to LESSOR, as set forth above, either by:

- (a) certified or bank check (which sum, plus any interest thereon, LESSOR shall be entitled to commingle and use with LESSOR'S own funds); or
- (b) irrevocable stand-by Letter of Credit, substantially in the form attached hereto as Exhibit C from Silicon Valley Bank or another commercial bank in Massachusetts reasonably acceptable to LESSOR.

If available to LESSEE, the Letter of Credit shall be the full term of this Lease. However, the Letter of Credit may be written on an annual basis with a provision that it may be drawn upon if LESSEE fails to provide a renewal or replacement therefor forty-five (45) days prior to the expiration of the then existing Letter of Credit.

The Letter of Credit shall; (i) name LESSOR as beneficiary; (ii) be cancelable only with a minimum 30 days prior notice to LESSOR; and (iii) be substantially in the form attached hereto as Exhibit C and in all respects in form and substance reasonably satisfactory to LESSOR

LESSOR reserves the right, at any time, at which the LESSOR reasonably questions the economic viability of the bank issuing the then existing Letter of Credit, to require that the original Letter of Credit be replaced by another Letter of Credit issued by another commercial bank reasonably acceptable to LESSOR. LESSEE shall be required to make its substitution within fifteen (15) days from receipt of LESSOR's notice. Failure to provide said replacement Letter of Credit shall entitle LESSOR to draw on the existing Letter of Credit and hold the cash proceeds thereof as the Security Deposit hereunder.

LESSOR agrees that it shall not draw on the Security Deposit Amount hereunder except to the extent necessary to cure a default beyond applicable notice and cure periods of LESSEE hereunder, or upon failure to LESSEE to tender a replacement or renewal Letter of Credit as contemplated above. LESSOR agrees that it shall deliver the Security Deposit to any successor in interest to LESSOR's rights hereunder.

**6. Use of Leased Premises.** LESSEE shall use the leased premises for general office, research and development and laboratory use, and any other use ancillary thereto only (the "Permitted Uses"), which uses LESSOR warrants and represents are currently allowed under local zoning regulations (subject to compliance with federal, state and municipal safety, healthy, building, and sanitary codes), and any encumbrance and restrictive instruments and agreements affecting the Building. LESSEE will use the Leased Premises in a safe manner and will not do or permit any act or thing which is contrary to any legal or insurance requirement referred to in Section 17 hereof or which constitutes a risk to the safety, health or well-being of other lessees in the Building, or the community, or creates a public or private or private nuisance or waste.

LESSEE shall not be entitled, for research or testing purposes, to bring any animals (including without limitation laboratory mice, rats or other mammals or primates, reptiles or aquatic life); micro-organisms; or bacteriological, biological, or pathological agents; (collectively, "Biological Items") into the Building or the Leased Premises without prior written notice to LESSOR and LESSOR's express written consent; which consent shall not be unreasonably withheld, conditioned or delayed. LESSEE, at its sole cost and expense, shall comply with all applicable local, state and federal governmental statutes, regulations, rulings and orders applicable thereto (including procuring any required permits or authorizations) as to any of the foregoing Biological Items allowed under this Section 6. LESSOR may condition its consent to the presence of such animals based on quantity, type, arrangements for storage, sanitation, transportation, and other physical and logistical considerations as LESSOR may reasonably determine in each instance and from time to time as circumstances may require. Notwithstanding any provision to the contrary herein, LESSOR hereby consents and agrees that LESSEE may keep at the Leased Premises and utilize for the Permitted Uses hereunder, the "Permitted Items" described on Exhibit E attached hereto, provided however, such consent by LESSOR does not relieve LESSEE from identifying, procuring in advance, and maintaining any and all municipal, state and federal permits or authorizations therefor (including without limitation the transport, storage and handling thereof), which shall be LESSEE's sole

responsibility and the absence of which shall not in manner abrogate this Lease or reduce any of LESSEE's obligations to pay all Rent due hereunder or otherwise perform hereunder. Any material additions or changes to the Permitted Items shown on Exhibit E shall require LESSOR's further consent per the standards set forth above in this Section 6 and upon the giving of such further consent Exhibit E shall be deemed to be amended accordingly. LESSEE hereby indemnifies and holds harmless LESSOR from and against any and all damages, liabilities, claims, demands, actions or other losses arising from LESSEE's non-compliance with this clause, except to the extent the same results or arises from the negligence or willful misconduct of LESSOR.

To the extent LESSEE requires additional space for the proper handling of its hazardous materials, then upon LESSEE's request LESSOR shall provide LESSEE with the option to occupy such separately demised space in the basement of the Building for such purpose, in and AS/IS condition and without representation or warranty by LESSOR of any kind or nature, whereupon an amendment will be executed to this Lease adding the rentable square footage of such additional space to this Lease with adjustment for Annual Base Rent and all Additional Rent at the rates hereunder, and all other calculations (e.g. Percentage Interest) hereunder, to reflect the addition of such space. LESSEE shall be under no obligation to accept such space, and LESSOR shall be under no obligation to offer such space more than once. If LESSEE requests such space, LESSOR shall provide LESSEE with the keys or access cards for such space.

LESSEE shall have access to the Leased Premises for LESSEE's use seven days per week and twenty four hours per day for each day of the Term, subject to the provisions of Section 7 hereof relative to overtime heat and air-conditioning. LESSEE shall keep the Leased Premises and adjacent areas in a clean and good condition equivalent to the standards reasonably set by LESSOR for the Building, reasonable wear and tear and casualty excepted. LESSEE shall be solely responsible to provide its own cleaning and janitorial services to the Leased Premises, at its sole cost and expense.

LESSEE shall be responsible for its own cleaning of the Leased Premises, and the prompt and proper disposal of all garbage, refuse, debris and other waste as mandated by reasonable and uniform Building regulations. LESSOR shall provide and maintain a trash dumpster and/or compactor at the Building loading dock, for the non-exclusive use of all tenants for disposal of non-hazardous/non controlled materials and substances. LESSEE may, but shall not be obligated to implement a recycling program, but its implementation, maintenance, or operation shall be without any cost or expense to LESSOR or any other tenants of the Building. LESSOR is not obligated to coordinate any such program in any respect.

**7. Utilities.** LESSOR shall provide to the Leased Premises and also to the common areas and facilities which LESSEE enjoys the right to use in accordance with standards reasonably determined by LESSOR for the Building and set forth herein, the following services: (1) hot and cold running water from points of supply to the water faucets or taps in the Leased Premises for use by LESSEE, the cost of which shall be paid by LESSEE

per the readings of the existing submeter for the Leased Premises; (2) heat and air conditioning (as applicable) during Normal Business Hours (and at such other times requested by LESSEE in accordance with the provisions of this Section 7 set forth below), as to which LESSEE controls and maintains the system servicing its laboratory space within the Leased Premises, and LESSOR controls and maintains the system servicing the office space within the Leased Premises; (3) ventilation and exhaust, and electricity (payable by LESSEE), sufficient for the Permitted Uses as they are generally stated and in amounts that satisfy the operating criteria set forth on Exhibit D (the "Operating Criteria"); (4) maintenance and repair of the Building, Premises and Common Areas as set forth in Section 11 below; and (5) elevator service; (items (1) through (5) above are collectively referred to herein as "Services"). "Normal Business Hours" shall mean 8 AM to 6 PM Monday through Friday, except for the following holidays, only: Thanksgiving Day, Christmas Day, New Years Day, Memorial Day, Fourth of July Day, and Labor Day.

Notwithstanding the foregoing, LESSEE shall pay all charges for electricity used on the Leased Premises per the existing submeter for the Leased Premises as set forth below. LESSOR shall provide monthly estimates of use that are based upon actual use for the prior year (i.e. the estimates to be reset annually), to be confirmed by periodic check meter readings for the Leased Premises itself. LESSEE shall pay for such electrical charges upon receipt of its monthly invoice from LESSOR, to be rendered and paid based on those estimates within thirty (30) days of LESSEE's receipt of the invoice. Within one hundred twenty (120) days of the close of each calendar year, LESSOR shall adjust the LESSEE's prior year's electrical payments to account for the actual and properly accrued charges reflective of the actual check meter readings for such year, and shall issue LESSEE a refund or deficiency statement for that year, as appropriate. LESSEE shall pay any deficiency shown thereon within thirty (30) days of its receipt of said invoice. Any rebates due LESSEE (not contested by LESSOR) shall be credited toward then current monthly electrical charge invoices or paid to LESSEE within thirty (30) days.

LESSOR shall maintain (a) an average temperature in the useable common areas of the Building generally between 60 degrees Fahrenheit and 80 degrees Fahrenheit at all times, and (b) an average temperature in the office portions of the Leased Premises generally between 60 degrees Fahrenheit and 80 degree Fahrenheit during Normal Business Hours (the "HVAC Criteria"). LESSEE hereby acknowledges that LESSEE controls the temperature in its own laboratory spaces; there shall be no requirement for LESSOR to maintain the foregoing standards with respect thereto; and LESSOR shall not be responsible for coordination of the relative temperatures within the Leased Premises or the balancing of the HVAC systems servicing the Leased Premises, given LESSEE's control over such laboratory spaces; provided, however, that LESSOR shall be responsible for providing electricity and water to the HVAC equipment serving the laboratory spaces 24-hours per day, 7 days per week, such usual and customary electrical capacity and water volume to be in same quantities as are sufficient for the average office/laboratory tenant in the building without regard to any special requirements or



specialized equipment (it being LESSEE's responsibility to make separate arrangements with LESSOR, at LESSEE's cost and expense, for any greater or more intense requirements). At any time, upon no less than 48 hours' prior notice by LESSEE, LESSOR shall make available overtime heat and air-conditioning to LESSEE at the Premises in accordance with clause (b) of the HVAC criteria, and LESSEE shall pay as additional rent, overtime heat and air-conditioning for the office portions of the Leased Premises as may be requested by LESSEE for the Leased Premises on the basis of \$ 350.00 per zone, per hour (subject to increase by the same percentage amount by which the standard electric rates are increased), as billed by LESSOR. LESSEE shall give LESSOR 48 hours prior notice of any requirements for specialized overtime heating and air-conditioning. LESSOR shall not be liable to LESSEE for any interruption, interference, damage or loss to LESSEE's research or experimentation occasioned as a result of any failure in the heating, ventilation, air conditioning, or electrical services or other utilities servicing the Building or the Leased Premises. No plumbing or electrical work of any type shall be done without LESSOR's approval which approval shall not be unreasonably withheld or delayed, and, if applicable, the appropriate municipal permit and/or inspector's approval. Water for domestic type sanitary purposes (only) shall be supplied at LESSOR's expense. There shall be separately metered and separately paid for by LESSEE, non-potable laboratory water and water for other particularized uses in the Leased Premises.

An "Abatement Event" shall be defined as an event or circumstance (other than those addressed in Section 18, and subject to Section 27 herein) that prevents LESSEE from using the Premises or any portion thereof, as a result of any failure to provide Services or access to the Premises. LESSEE shall give LESSOR notice ("Abatement Notice") of any such Abatement Event, and if such Abatement Event continues beyond the "Eligibility Period" (as that term is defined below), then the Annual Base Rent and LESSEE's other monetary obligations to LESSOR hereunder shall be abated entirely or reduced, as the case may be, after expiration of the Eligibility Period for such time that LESSEE continues to be so prevented from using, and does not use, the Premises or a portion thereof, in the proportion that the rentable area of the portion of the Premises that LESSEE is prevented from using, and does not use, bears to the total rentable area of the Premises; provided, however, in the event that LESSEE is prevented from using, and does not use, a portion of the Premises for a period of time in excess of the Eligibility Period and the remaining portion of the Premises is not sufficient to allow LESSEE to effectively conduct its business therein, and if LESSEE does not conduct its business from such remaining portion, then for such time after expiration of the Eligibility Period during which LESSEE is so prevented from effectively conducting its business therein. Annual Base Rent and LESSEE's other monetary obligations to LESSOR hereunder shall be abated entirely for such time as LESSEE continues to be so prevented from using, and does not use, the Premises. The term "Eligibility Period" shall mean a period of three (3) consecutive days after LESSOR's receipt of any Abatement Notice(s). In addition, if an Abatement Event continues for sixty (60) consecutive days after any Abatement Notice, LESSEE may terminate this Lease by written notice to LESSOR at any time prior to the date such Abatement Event is cured by LESSOR.

**8. Compliance with Laws.** LESSEE acknowledges that no trade, occupation, or activity shall be conducted in the Leased Premises or use made thereof which will be unlawful, improper, noisy or offensive, or contrary to any federal or state law or administrative regulations, or any municipal ordinance or regulations in force at any time in Cambridge. LESSEE shall keep all employees working in the Leased Premises covered with Worker's Compensation Insurance, as applicable. Specifically, LESSEE shall be responsible for causing the Premises and any work conducted therein to be in full compliance with the Occupational Safety and Health Act of 1970 and any amendments thereto. LESSEE shall strictly adhere to any and all federal, state, and municipal laws, ordinances, and regulations governing the use of LESSEE's laboratory scientific experimentation. LESSEE shall be solely responsible for procuring and complying at all times with any and all necessary permits directly relating or incident to: the conduct of its office and research activities on the Premises; its scientific experimentation on the Premises; any transportation; storage; handling; use and disposal of any low level radioactive or bacteriological or pathological substances or organisms or other hazardous wastes or environmentally dangerous substances or materials. LESSEE shall immediately give notice to LESSOR of any warnings or violations relative to the above received from any federal, state, or municipal agency or by any Court of Law, and shall immediately cure the conditions causing any such violations; and LESSOR shall permit LESSEE to cure said harm or hazard prior to any active intervention by LESSOR (except where such intervention is necessitated by the emergency nature of the harm or hazard; or where the harm or hazard impairs the value of the Building, (directly or as collateral on any debt); interests with any other tenant's rights; or is required by any governmental agency or authority.

LESSEE shall fully indemnify and hold harmless in all respects LESSOR from any and all claims, demands, losses, liabilities, and damages (including all necessary and reasonable expenses for contractors, consultants, environmental engineers, attorneys, and other professionals utilized by LESSOR to evaluate and remediate any hazard or harm caused by LESSEE and which LESSEE has failed to cure; and further including any and all fines or fees assessed by any governmental agency relative to any hazard or harm), directly arising from the conduct of its research on the Leased Premises (especially relating to research involving hazardous substances), or LESSEE's obligations and responsibilities as set forth above and herein, and excepting liability for any claims and damages resulting from the acts or negligence of LESSOR or its agents or employees.

Notwithstanding the foregoing or any other provision of this Lease, however, LESSEE shall not be responsible for compliance with any such laws, regulations, or the like requiring (i) structural repairs or modifications or (ii) repairs or modifications to the base Building utilities running to the Leased Premises or (iii) installation of new Building service equipment, such as fire detection or suppression equipment, unless such repairs, modifications, or installations shall be due to LESSEE's particular manner or intensity of use of the Leased Premises (in contrast to the general office/laboratory use allowed under

the Permitted Uses), or LESSEE's negligence or willful misconduct or that of its employees, agents or independent contractors.

LESSOR hereby represents and warrants to LESSEE that (a) the Building and the Premises shall on the Delivery Date be in material compliance with all applicable laws, regulations orders and any instruments or agreements encumbering or affecting the Building, and LESSOR covenants to keep the same in compliance throughout the Term subject to LESSEE's obligations under Section 32 of this Lease; (b) LESSOR holds fee simple title to the Building and the property on which it is located, subject to no current mortgage other than Morgan Stanley Mortgage Capital Inc., as evidenced by the Mortgage recorded with the Middlesex Registry District of the Land Court as Document No. 1306086, Certificate No. 229899, Book 01279 Page 149; (c) LESSOR has full power and authority to enter into this Lease and has obtained all consents and taken all actions necessary in connection therewith; and, (d) no other party has any possessory right to the Leased Premises or has claimed the same.

**9. Fire and General Insurance Requirements.** LESSEE shall not permit any use of the Leased Premises which will make voidable, increase any premium, or decrease any insurance on the Building and property of which the Leased Premises are a part, or on the contents of said Building, or which shall be contrary to any law, regulation, or order from time to time to established or issued by the local Fire Department, or any similar body, or any restriction contained in any of LESSOR'S insurance policies as to the Building and property provided, however that LESSOR hereby represents and warrants that the Permitted Uses contemplated hereunder shall not violate any of the foregoing regulations or restrictions as of the Delivery Date. LESSEE shall, on demand, reimburse LESSOR all extra insurance premiums caused by LESSEE'S particular use of the Leased Premises (as opposed to Permitted Uses generally). LESSEE shall pay LESSOR if LESSOR incurs any extraordinary costs or expenses to maintain the Leased Premises or any Building equipment servicing the same incurred as a direct result of LESSEE'S vacating the Leased Premises or allowing the same to remain unoccupied for any extended periods of time during the Lease Term.

**10. Maintenance of Leased Premises.** LESSOR shall be responsible for all exterior and structural maintenance of the Leased Premises (including without limitation exterior plate glass), the maintenance and repair of the Building, including without limitation the roof and foundation of the Building of which the Leased Premises are a part, and for the maintenance, repair and replacement of all common areas serving the Premises and LESSOR'S heating and cooling equipment, doors, locks, plumbing, and electrical wiring, and other Building systems serving the Premises and common areas of the Building; except for damage caused by the malicious, willful, or negligent acts of LESSEE, and chemical, water or corrosion damage from any source within the control of LESSEE. LESSEE agrees to maintain at its expense all other elements and components of the Leased Premises in the same condition as they are at the Delivery Date, normal wear and tear and damage by fire or casualty only excepted, and whenever necessary, to replace light bulbs (after the first six months of the term), interior plate glass and other glass

therein, acknowledging that the Leased Premises upon delivery and acceptance by LESSEE on the Delivery Date (except for latent defects and Punch List Items) are in good order and the light bulbs and glass whole. LESSEE will properly control or vent all solvents, degreasers, and the like and shall not cause the area surrounding the Leased Premises to be in anything other than a neat and clean condition, depositing all waste in appropriate receptacles. LESSEE shall not permit the Leased Premises to be overloaded, damaged, stripped or defaced, suffer any waste of the Leased Premises. Any maintenance which is the responsibility of LESSOR and which is necessitated by some specific aspect of LESSEE's negligent or reckless use of the Leased Premises shall be at LESSEE's expense. All maintenance provided by LESSOR shall be performed as reasonably required at LESSOR's discretion and except for emergencies, during LESSOR's normal business hours. Except as otherwise permitted herein, LESSEE may not keep any animals on the Leased Premises without prior written notice to and approval from LESSOR in each instance, which approval may be denied or conditioned in LESSOR's discretion. LESSEE shall be solely responsible for maintenance and operation of any and all of its systems installed by the LESSEE and shall waive any and all claims against LESSOR for any damage, impairment, or loss relative to these systems unless such damage is caused by the acts or negligent or reckless acts of LESSOR. Specifically, LESSEE shall maintain, at its sole expense, and pay all charges for electrical service and use of all LESSEE's equipment associated with its operation.

LESSOR shall provide: (a) for maintenance, repair and upkeep for the landscaping on the property; (b) janitorial services in the common areas; (c) hot and cold water for lavatories, restrooms, kitchenettes and potable water; (d) its standard security system into the Building (LESSEE to be responsible for installation, monitoring, maintenance and repair of its own security system into the Leased Premises from the adjacent common areas, and to coordinate the means of emergency access into the Leased Premises with LESSOR; LESSOR to reasonably cooperate with LESSEE to the extent reasonably possible (without additional cost to LESSOR)).

#### **11. Delivery to Lessee - Lessee's Alterations to Leased Premises - Emergency Generator Alternatives**

The Leased Premises are to be delivered to LESSEE on the Delivery Date in the condition set forth in this Section 11 and Sections 8 and 32 hereof.

LESSEE may make its initial improvements to the Premises at LESSEE's sole cost and expense as set forth in Section 32.

Other than the initial improvements made by LESSEE in accordance with Section 32, LESSEE shall not make structural alterations or additions of any kind to the Leased Premises, but may make nonstructural alterations provided LESSOR consents thereto in writing, said consent not to be unreasonably withheld, conditioned or delayed. Plans and specifications for any of LESSEE's potential improvements shall be submitted by LESSEE to LESSOR in each instance, in advance of any proposed work, in sufficient

detail and scope to enable LESSOR to make a reasonable determination thereon. All such allowed alterations shall be at LESSEE's expense and shall be in quality at least equal to the present construction. If LESSOR performs any services for LESSEE in connection with such alterations or otherwise, LESSEE shall reimburse LESSOR for LESSOR's actual and reasonable out-of-pocket costs for such services and any invoice therefor will be promptly paid. LESSEE shall be responsible to use such contractors as will ensure harmonious labor relations in the Building and on the site; and to prevent strikes, work stoppages, picketing and other labor actions. LESSEE shall submit a list of its contractors to LESSOR in advance. LESSEE shall provide LESSOR with acceptable general liability and builder's risk insurance certificates naming LESSOR and its lender as additional named insureds prior to the commencement of any work by LESSEE. LESSEE shall not permit any mechanics liens, or similar liens, to remain upon the Leased Premises in connection with work of any character performed or claimed to have been performed at the direction of LESSEE and shall cause any such lien to be released, removed or bonded forthwith without cost to LESSOR. Any alterations completed by LESSEE, including, without limitation, window blinds or other window treatment, shall be building standard unless LESSOR expressly agrees otherwise. Unless otherwise agreed by LESSOR in writing, any and all installations by LESSEE shall become a part of the Leased Premises and LESSEE shall not remove the same either during the Term or at the expiration or earlier termination of this Lease, unless directed to do so by LESSOR at the time such Alterations are approved; except that LESSEE shall have the right to remove any hard-wired or hard-plumbed equipment purchased, paid for and installed by LESSEE itself, such as chemical fume hoods, as long as LESSEE restores the Leased Premises to the condition that it was in prior to the installation of such equipment. Notwithstanding the foregoing or any provision to the contrary contained herein, (i) LESSEE shall retain title to and be entitled to remove any movable office furniture, equipment, trade fixtures, portable bio hoods, and other personal property at the Premises, provided the Leased Premises and any common areas impacted thereby are restored to their original condition prior to such installations; (ii) LESSEE shall retain title to and be entitled to remove its emergency generator, provided the Leased Premises and any common areas impacted thereby are restored to their original condition prior to such installation; (iii) LESSEE shall not be required to remove from the Premises any portion of the LESSOR's Build-Out; and (iv) LESSEE shall be entitled to request of and receive from LESSOR, a statement at the time LESSEE makes any improvements to the Leased Premises as to whether the item or items being installed will be required to be removed by LESSEE at the expiration or earlier termination of the Lease. LESSOR shall have the right at any time to change the arrangement of parking areas, stairs, walkways or other common areas of the Building of which the Leased Premises are a part, provided such changes do not interfere with LESSEE's use of the Leased Premises or access to such areas and facilities (including, without limitation, the Building and the Premises), or any other right of LESSEE hereunder.

Additionally, LESSEE shall be entitled to the shared use (with other tenants) during the Lease Term of an emergency generator provided by Landlord. Landlord will maintain and service the emergency generator during the Term. LESSEE is required to install,

prior to its use thereof, at its own cost and expense (but under LESSOR's direction), a separate panel to the existing emergency generator panel, along with a separate submeter to allow readings of LESSEE's own use, LESSOR shall be entitled to access the submeter periodically and shall invoice LESSEE for LESSEE's electricity use and share of maintenance as provided below for emergency generator usage, which invoices shall be paid by LESSEE within thirty (30) days of receipt, said payments to be considered to be Additional Rent hereunder. As an express condition to LESSEE's use of the emergency generator as provided above, LESSEE agrees its use of the emergency generator shall be at its sole risk at all times, and that LESSOR shall not be liable for any claims, damages or liabilities arising the operation or malfunction of the emergency generator, unless LESSOR fails to adequately maintain or service the emergency generator.

All tenants sharing use of the emergency generator, from time to time, shall pay their own proportional share for its operation (including without limitation all costs and expenses of service and maintenance), with LESSEE to be responsible for its respective proportional share. Payments shall be made within thirty (30) days of invoicing by LESSOR. Cost sharing allocations shall be based on the amount of power (amperage) allocated to each such tenant by LESSOR, such that all tenants engaged in such sharing shall account for 100% of all such costs. For example two tenants sharing the emergency generator where tenant A is allocated 30% and tenant B allocated 70% shall share all such costs in that proportion; if a third tenant is added such that tenant A is allocated 30%, tenant B allocated 40%, and tenant C allocated 30% then they shall share all such costs in that proportion; etc.

Alternative to the use of the shared emergency generator, LESSEE shall have the option in its discretion to install its own emergency generator in a location either on the roof of the Building, or alternatively, in another location designated by LESSOR (e.g. parking garage level) by mutual agreement of LESSOR and LESSEE; LESSOR to approve the specifications therefor (such approval not to be unreasonably withheld or delayed); with all costs and expenses thereof to be borne by LESSEE (including all costs and expenses of operation, servicing, maintenance and repair).

**12. Assignment and Subletting.** LESSEE covenants and agrees that neither this Lease nor the Term and estate hereby granted, nor any interest therein will be assigned, mortgaged, pledged, encumbered or otherwise transferred, and that neither the Leased Premises, nor any part thereof, will be encumbered in any manner by reason or by act or omission of LESSEE, or used or occupied, or permitted to be used or occupied, by anyone other than LESSEE, its servants, agents, contractors and employees, or for any use or purpose other than as above stated, or be sublet, without in each case LESSOR's prior written consent, which shall not be unreasonably withheld or delayed. Notwithstanding the foregoing, LESSOR's prior written consent shall not be required for any assignment or sublet to an wholly or majority owned affiliate or subsidiary of the LESSOR, or any entity succeeding to LESSOR as a direct result of a merger or

consolidation or asset or stock transfer or issuance of stock by LESSEE ("Permitted Transfer").

The grounds upon which LESSOR may reasonably withhold its consent are as follows:

- (i) The prospective assignee's or sub-lessee's intended use of the Premises is not identical to the permitted uses set forth in the Lease; or,
- (ii) The nature, character, class and standards of the prospective assignee's or sublessee's business will not be consistent with those of other lessees in the Building or will not conform to the mix of other lessees in the Building at that time; or,
- (iii) The financial strength and reliability of the prospective assignee or sublessee, excluding any additional personal or corporate guarantees, is not sufficient, in LESSOR'S reasonable business judgment, to meet all of LESSEE'S obligations to be performed as of and from the date of said assignment or sub-letting. The prospective assignee or sub-lessee must produce to LESSOR'S accountants a verified and current audited financial statement, (or if none has been prepared by said prospective assignee within the past three years, a CPA certified current financial statement), and such other documentation as is material in making such determination; which shall be kept confidential by them; or,
- (iv) The operations of the prospective assignee or sub-lessee will violate any exclusive or other rights given any other lessees in the Building; or,
- (v) The failure of LESSOR'S mortgage lender(s) to consent.

Except in the case of a Permitted Transfer, LESSOR, in addition to Annual Base Rent and all Additional Rent hereunder, shall be entitled to fifty (50%) percent of the full amount of any and all sums assessed or collected by LESSEE, in whatever form, attributable to or arising from the permitted subletting or assignment (after deduction for reasonable brokerage commissions and attorneys fees actually incurred, reasonable marketing costs, and reasonable tenant improvement and free rent concessions; and excluding shared administrative or laboratory type services , e.g. shared fax machine, shared lab ice machine, etc.) which exceed said Annual Base Rent or Additional Rent hereunder, (herein, "Rent Mark-Up"). Legitimate good faith reimbursements for employees or independent contractors shared in common as between LESSEE and any permitted sublessee or assignee, shall not be deemed to be sums assessed or collected by LESSEE attributable to or arising from the permitted subletting or assignment.

Notwithstanding LESSOR'S consent to the assignment or subletting, as contemplated above, LESSEE shall remain primarily liable to LESSOR for the payment of all Rent and

for the full performance of the covenants and conditions of this Lease; and LESSOR may collect all sums due as Rent directly from the assignee/subtenant.

Notwithstanding the foregoing, in the event that LESSEE desires to sublet the Leased Premises or any portion thereof, other than in connection with a Permitted Transfer, it shall be in each instance notify the LESSOR in writing, stating the intended effective date of the proposed sublet (which shall not be less than 60 days from the date of said notice to LESSOR). Subject to the preceding sentence, if the proposed sublease itself (or cumulatively with other approved subleases) accounts for the sublease of greater than forty (40%) percent of the area of the Leased Premises, then LESSOR shall have a period of 60 days from the date it receives such notice to exercise an election to take back the Premises, in LESSOR's sole discretion and without any obligation to so elect, whatsoever, notwithstanding the circumstances, and without prejudice to or waiver of any of LESSOR's rights or LESSEE's continuing obligations hereunder. LESSEE shall provide LESSOR with all reasonably material information relative to LESSOR making an informed decision concerning said sublet, immediately upon LESSOR's request. If LESSOR elects to take back the Premises, it shall send written notice thereof to LESSEE; and LESSEE shall be irrevocably bound to surrender and vacate the Premises as if the Term of the Lease had expired on the date set forth in the LESSEE's initial notice to LESSOR; and provided LESSEE vacates and surrenders on said date, without being in default (of which LESSEE has been provided written notice) of any provision hereof as of said date, this Lease shall be null and void and without recourse to either party hereto (but for terms and conditions contemplated herein to survive termination of this Lease). LESSEE shall not be entitled to any payments, commissions, credits, offsets, or any kind or nature arising from said sublet, nor shall any individual or entity acting by, through, or under LESSEE be so entitled. Once an election is made by LESSOR, LESSEE shall be subject to the penalties for holding over set forth in this Lease, if it fails to vacate and surrender the Premises by the date stated in the notice, or if it fails to discharge (or cause its lenders or others with which LESSEE has dealt to discharge) any and all recorded liens or other encumbrances, notices, or restrictions on its leasehold or contractual interest in and to the Premises as of said date. Nothing in this paragraph shall require LESSOR to make an election to take back the Premises, and nothing in the aforesaid process shall relieve LESSEE of its liability under this Lease should LESSOR elect not to take back the Premises.

**13. Subordination.** This Lease shall be subject and subordinate to any and all mortgages and related documents placed on the Building, Leased Premises or the real property in existence as of the date hereof or coming into existence at any time hereafter. LESSEE shall upon execution of this Lease execute and deliver LESSOR's lender's form of Subordination Nondisturbance and Attornment Agreement, substantially in the form attached hereto as Exhibit F ("Lender's SNDA Form"), and LESSOR shall use commercially reasonable efforts to procure execution thereof from its current lender and provide a fully executed original to LESSEE. LESSOR's inability to provide the same despite its commercially reasonable efforts to do so shall not be deemed to be a default under this Lease. LESSOR shall be deemed to have used "commercially reasonable



efforts” in the foregoing instance if it makes a prompt request in writing for execution of such Lender’s SNDA Form upon Lease signing (with a copy to the LESSEE); makes at least weekly phone inquiries to the lender or loan servicer as to the status of its execution, by its counsel or in-house leasing manager; and to the extent required by the lender or loan services, pays any required loan servicing fee required by such lender. Further, at any other time during the Term, LESSEE shall, within fifteen (15) days after written request from LESSOR, execute and deliver the LESSEE’s Lender’s SNDA Form to LESSOR who shall use commercially reasonable efforts to procure execution thereof from its then current lender(s) and provide a fully executed original to LESSEE. LESSOR’s inability to provide the same despite its commercially reasonable efforts to do so shall not be deemed to be a default under this Lease.

**14. Lessor’s Access to Leased Premises.** LESSOR or agents of LESSOR may at reasonable times and upon reasonable notice where possible enter to view the Leased Premises and may remove any signs not approved and affixed as herein provided, and may make repairs and alterations as LESSOR should elect to do and repairs which LESSEE is required but has failed to do (but only after notice and an opportunity to repair being provided to LESSEE), and may show the Leased Premises to prospective mortgagees and appraisers, and during the last nine (9) months of the Term to brokers, and others and to prospective tenants. Additionally, to the extent necessary to service other portions of the Premises or the common areas or other tenant spaces in the building; LESSOR may add, relocate, or maintain a chase, pipes, conduits, or ducts, within the Premises provided the aforesaid do not materially interfere with LESSEE’S use of the Premises or its aesthetics. If any such addition or relocation reduces the space available for use by LESSEE, the amount of Annual Base Rent and LESSEE’S Allocable Percentage for Operating Expenses and Taxes shall be reduced accordingly. Any entry by LESSOR onto the Premises for this purpose shall be done in such manner as to minimally interfere with the business conducted thereon by LESSEE, and undertaken with reasonable steps to protect LESSEE’S property.

**15. Snow Removal.** LESSOR will be responsible for the removal or other treatment of snow and ice on walkways, sidewalks, entryways and parking areas. Notwithstanding the foregoing, however, LESSEE shall hold LESSOR harmless from any and all claims by LESSEE’s agents, representatives, employees or business invitees for damage or personal injury resulting in any way from snow or ice on any area serving the Building, provided LESSOR has performed this obligation absent LESSOR’s gross negligence or willful misconduct.

**16. Access and Parking.** LESSEE shall be granted the right, at current rates (which may be increased from time to time to reflect market increases), to park up to twenty one (21) cars in the Building’s on-site indoor parking lot or facility on an unassigned and unreserved basis, in single or tandem spaces or on a valet basis which LESSOR in its sole discretion shall designate from time to time. The initial parking rate therefor shall be \$ 210 per month, per car, which monthly rate may be changed by LESSOR in its discretion subject to and reflective of periodic market changes in accordance with this

paragraph. All payments for these parking rights shall be considered to be Additional Rent under this Lease. Additionally, LESSEE shall be entitled to up to an additional seven (7) parking spaces (i.e. twenty eight (28) parking spaces in total) in the Building garage (but only on a valet basis, and only to the extent LESSOR is providing valet service to the Building garage, which LESSOR shall not be obligated to do), at then current rates as set by LESSOR in its discretion. The Building garage, plus any stairs, walkways or other means of ingress or egress controlled by the LESSOR shall not in any case be considered extensions of the Leased Premises. LESSEE will not obstruct in any manner any portion of the Building or the walkways or approaches to the Building, and will conform to all reasonable and non-discriminatory rules now or hereafter made by LESSOR for parking, and for the access and egress, security, care, use, or alteration of the Building, its facilities and approaches in connection with such parking, provided the same do not decrease LESSEE's parking rights hereunder. LESSEE further warrants that LESSEE will not permit any employee or visitor to violate this or any other covenant or obligation to LESSEE. No vehicles shall be stored or left in any parking area for more than three nights without LESSOR's written approval. Unregistered or disabled vehicles, or storage trailers of any type, may not be parked overnight at any time. LESSEE agrees to assume all expense and risk for the towing of any misparked vehicle belonging to LESSEE or LESSEE's agents, employees, business invitees, or callers, at any time. For the purpose of this section the term "space" shall mean general access for one motor vehicle. All vehicles shall be parked and left on the premises at their owners' sole risk and LESSOR shall not be liable for any damages caused to said vehicles while they are parked or left on the premises.

**17. Liability Insurance.** LESSEE shall be solely responsible as between LESSOR and LESSEE for deaths or personal injuries to all persons whomsoever occurring in or on the Leased Premises from whatever cause arising, and damage to property to whomsoever belonging arising out of the use, control, condition or occupation of the Leased Premises by LESSEE; and LESSEE agrees to indemnify and save harmless LESSOR from any and all liability, reasonable expenses, damage, causes of action, suits, claims or judgments caused by or in any way growing out of any matters aforesaid. LESSOR shall be solely responsible as between LESSOR and LESSEE for deaths or personal injuries to all persons whomsoever occurring in or on the Leased Premises, Building, or the property on which the Building is located resulting or arising from any negligent act or omission by LESSOR, and damage to property to whomsoever belonging arising out of any negligent act or omission by LESSOR; and LESSOR agrees to indemnify and save harmless LESSEE from any and all liability, reasonable expenses, damage, causes of action, suits, claims or judgments caused by or in any way growing out of any matters aforesaid. LESSEE will secure and carry at its own expense a comprehensive general liability policy insuring LESSEE, LESSOR (and its lenders and any other entity reasonably requested in writing by LESSOR) against any claims based on bodily injury (including death) arising out of the condition of the Leased Premises or their use by LESSEE, such policy to insure LESSEE, LESSOR and said other entities against any claim up to Two Million (\$2,000,000.00) Dollars per occurrence for personal injury or damage to property. LESSOR and its lenders shall be included in such policy as

additional insureds. LESSEE will promptly file with LESSOR certificates showing that such insurance is in force, and thereafter will file renewal certificates prior to the expiration of any such policies. All such insurance certificates shall provide that such policies shall not be canceled without at least thirty (30) days prior written notice, except in the event of cancellation for non payment of premium, whereby ten (10) days' prior notice will be provided to each insured named therein.

LESSOR shall maintain in full force from the date upon which LESSEE first enters the Premises for any reason, throughout the Term, a policy of insurance upon the Building insuring against all risks of physical loss or damage under an All Risk coverage endorsement in an amount at least equal to the full replacement value of the property insured, with an Agreed Amount endorsement to satisfy co-insurance requirements, as well as insurance against breakdown of boilers and other machinery as customarily insured against. LESSOR shall supply to LESSEE from time to time upon request of LESSEE certificates of all such insurance issued by or on behalf of the insurers named therein by a duly authorized agent.

LESSOR and LESSEE waive all rights of recovery against the other and its respective officers, partners, members, managers, agents, representatives, and employees for loss or damage to its real and personal property kept in the Building which is required to be insured by such party hereunder (except to the extent the foregoing may have the effect of altering the parties agreed waiver of subrogation). Each party shall, upon obtaining the property damage insurance required by this Lease, notify the insurance carrier that the foregoing waiver is contained in this Lease and shall use reasonable efforts to obtain an appropriate waiver of subrogation provision in the policies.

**18. Fire, Casualty, Eminent Domain.** Should a substantial portion of the Leased Premises, or of the property of which they are a part, be substantially damaged by fire or other casualty, or be taken by eminent domain (in either case such that restoration of the Premises within six (6) months after such event is not practicable), LESSOR or LESSEE may elect to terminate this Lease by written notice. When such fire, casualty, or taking renders the Leased Premises substantially unsuitable for their intended use and no termination has been elected, a just and proportionate abatement of rent shall be made, and LESSEE may elect to terminate this Lease if: (a) LESSOR fails to give written notice within ninety (90) days of intention to restore Leased Premises, or (b) LESSOR fails to restore the Leased Premises to a condition substantially suitable for their intended use within one hundred eighty (180) days of said fire, casualty or taking. LESSOR reserves all rights for all damages or injury to the Leased Premises for any taking by eminent domain; except for damage to LESSEE'S moveable fixtures, property or equipment, or moving expenses, which are specifically allocated to LESSEE by the taking authority or arbitrators.

**19. Brokerage.** LESSEE and LESSOR each warrants and represents to the other that they have dealt with no broker or third person with respect to this Lease or the Leased Premises or Building entitled to a commission as a result of this Lease, other than

Colliers Meredith & Grew and CB Richard Ellis, whose fees shall be paid by LESSOR pursuant to separate written agreements; and LESSOR and LESSEE each agree to indemnify and hold harmless the other from any fees, expenses, or damages arising from breach of the above warranty.

**20. Signage.** LESSEE shall have the right to have its name included at LESSOR's expense in any central directory maintained by LESSOR listing the Building's other tenants. LESSOR authorizes LESSEE, if desired, to display one sign on LESSEE's office entrance door (at LESSEE's expense) consistent with similar signs of other tenants. LESSEE shall obtain the written consent of LESSOR before erecting any other sign on the Leased Premises, which consent may be conditioned on compliance with LESSOR's requests as to size, wording, and location of such signs, but shall not be unreasonably withheld or delayed.

**21. Default.** In the event that; (a) LESSEE shall default in the payment of the Security Deposit Amount or any installment of Annual Base Rent or any Additional Rent, and such default shall continue for five (5) days after written notice thereof; or (b) LESSEE shall default in the observance or performance of any other of LESSEE'S covenants, agreements, or obligations hereunder and such default shall not be corrected within thirty (30) days after written notice thereof; provided, however, that if such failure cannot reasonably be cured within such 30-day period, then LESSEE shall not be in default if, and so long as, LESSEE commences such cure within such 30-day period and thereafter diligently pursues such cure to completion (provided there is no material interference with the operations of the Building or any tenant therein during such protracted cure period); (c) LESSEE shall be declared bankrupt or insolvent according to law, or if any voluntary or involuntary petition for bankruptcy is filed against LESSEE and not discharged within sixty (60) days from filing; or if any assignment shall be made of LESSEE'S property for the benefit of creditors; then, while such default continues, and without demand or further notice, LESSOR shall have the right to re-enter and take complete possession of the Leased Premises, to declare the term of this Lease ended, and to remove LESSEE'S effects, without being guilty of any manner of trespass and without prejudice to any remedies which might be otherwise used for arrears of rent and other default of breach of covenant. LESSEE shall indemnify LESSOR against all loss of Rent and other payments, which LESSOR may incur by reason of such termination during the remainder of the term, it being expressly understood that LESSOR shall use reasonable efforts to relet the Leased Premises and collect all rents from such reletting. If LESSEE shall default, after reasonable notice thereof, in the observance or performance of any conditions or covenants on LESSEE'S part to be observed or performed under or by virtue of any one of the provisions in any section of this Lease, LESSOR, without being under any obligation to do so and without thereby waiving such default, may after the expiration of any applicable cure period, remedy same for the account and at the expense of LESSEE, (including but not limited to application of any or all of the Security Deposit held by LESSOR). If LESSOR pays or incurs any obligations for the payment of money in connection therewith, including but not limited to reasonable attorney's fees in instituting, prosecuting or defending any action or proceeding, such sums paid or

obligations incurred, with interest at the rate of eight (8%) percent per annum and costs, shall be paid to LESSOR by LESSEE as additional rent. Upon default of this Lease by LESSEE, and because the payment of Rent in Monthly installments is for the sole convenience of LESSEE, the entire balance of Rent which would accrue hereunder shall at the option of the LESSOR become immediately due and payable; subject however to LESSOR's obligation to use reasonable efforts to mitigate its damages occasioned by said default. LESSEE shall be responsible to pay reasonable attorneys fees incurred by LESSOR in any successful action by LESSOR for delinquent Rent or in the case of liquidated damages as aforesaid; and otherwise both LESSOR and LESSEE shall be entitled to such reasonable attorneys fees as a court of competent jurisdiction may award as part of its final judgment in the event of any dispute involving damages, injunctive relief or specific performance by either.

Notwithstanding any provision to the contrary contained herein, (i) in no event shall LESSEE be responsible for punitive or consequential damages incurred by LESSOR as a result of any act (or failure to act) by LESSEE, and (ii) in no event shall LESSOR be responsible for punitive or consequential damages incurred by LESSEE as a result of any act (or failure to act) by LESSOR.

**22. Notices.** Any notice from LESSOR to LESSEE relating to the Leased Premises or to the occupancy thereof shall be deemed duly served if sent to the Leased Premises by either certified mail, return receipt requested, postage prepaid, or by recognized overnight commercial delivery service (e.g. FedEx), addressed to LESSEE at the Leased Premises. Any notice from LESSEE to LESSOR relating to the Leased Premises or to the occupancy thereof shall be deemed duly served if delivered to LESSOR by certified mail, return receipt requested, postage prepaid, or by recognized overnight commercial delivery service (e.g. FedEx), addressed to: Rivertech Associates II, LLC (Attn: Dan Garvey, CFO) c/o The Abbey Group 575 Boylston Street, Boston, Massachusetts 02116, with a copy to Christopher C. Tsouros, Esq., Posternak Blankstein & Lund LLP Prudential Tower 800 Boylston Street Boston, Mass. 02199. Notices shall be deemed given at the earlier of the date of actual delivery, or if by certified mail, three (3) business days after posting with the U.S. Postal Service. Time is of the essence in delivery of any notice, and the performance of any obligations relating thereto. Either party may designate a different address to which notice is to be sent by providing a notice of address change to the other in accordance with this Section 22. Prior to the Delivery Date, LESSEE's notice address shall be LESSEE's address set forth at the beginning of this Lease.

**23. Lessee's Occupancy.** In the event that LESSEE remains in any part of the Leased Premises after the agreed termination date of this Lease without the written permission of LESSOR, then all other terms of this Lease shall continue to apply, except that LESSEE shall be liable to LESSOR for any loss, damages or expenses incurred by LESSOR, and all Annual Base Rent shall be due in monthly installments at a rate of two hundred (200%) percent of that which would otherwise be due under this Lease, it being understood between the parties that such extended occupancy as a tenant at sufferance.

**24. Rules and Regulations.** LESSEE and LESSEE's servants, employees, agents, invitees and licensees shall observe faithfully and comply strictly with such reasonable and non-discriminatory rules and regulations governing the use of the Building and site and all common areas as LESSOR may from time to time, adopt, provided that a copy of such rules and regulations has been delivered to LESSEE.

**25. Outside Area Limitations.** No goods or things of any type or description shall be held or stored outside the Leased Premises at any time without the express written approval of LESSOR, except bicycles which shall be stored only in the bicycle rack to be provided by LESSOR.

**26. Environmental Compliance.** LESSEE will so conduct and operate the Leased Premises as not to interfere in any way with the use and enjoyment of other portions of the same or neighboring buildings by others, by reason of offensive odors, smells, noise, accumulation of garbage or trash, vermin or other pests or otherwise and will, at its expense, employ a professional pest control service if necessary as a result of LESSEE'S operations. LESSEE agrees to maintain efficient and effective device for preventing damage to heating equipment from harmful solvents, degreasers, cutting oils, and the like, which may be used within the premises. Except in accordance with applicable laws and except as otherwise provided herein, no hazardous wastes, radioactive materials or chemical or harmful biological agents or materials of any sort shall be stored or allowed to remain within the Leased Premises at any time, without LESSOR'S prior notice and consent, which consent shall not be unreasonably withheld or delayed.

Prior to vacating the Leased Premises at the end of the Term (or any applicable extension), or sooner in the event of a default hereunder, LESSEE at its sole cost and expense shall provide LESSOR and Owner with environmental audit by qualified environmental engineering firm reasonably satisfactory to LESSOR (the "Exit Study"). Liability for any remedial actions required or recommended on the basis of the Exit Study to address materials introduced by LESSEE or parties claiming under LESSEE shall be borne by LESSEE; LESSEE acknowledging it has received and reviewed an exit study provided by LESSOR prior to the execution of this Lease showing the then existing environmental condition of the Leased Premises to be free from any harmful hazardous materials or contaminants, and accepts the same in all respects.

LESSOR shall indemnify, defend and hold LESSEE harmless from and against any and all claims, losses, damages, liabilities, costs, legal fees and expenses of any sort arising out of or relating to (i) the presence on the Premises, Building or the property on which the Building is located of any hazardous substances, hazardous wastes, pollutants, radiation

or radioactive materials present at the Premises, Building or the property on which the Building is located as of the Delivery Date, and/or (ii) any release into the environment (including, but not limited to, the Building or the property on which the Building is located) of any hazardous substances, hazardous wastes, pollutants, radiation or radioactive materials to the extent such release results from the negligence of or willful misconduct or omission by LESSOR or its agents or employees.

**27. Responsibility.** Neither LESSOR nor LESSEE shall be held liable to anyone for loss or damage caused in any way by the use, leakage or escape of water or, except as otherwise provided herein, for cessation of any service rendered customarily to said Leased Premises or buildings or agreed to by the terms of this Lease, due to labor difficulties, weather conditions, or mechanical breakdowns, to trouble or scarcity in obtaining fuel, electricity, service or supplies from the sources from which they are usually obtained for said Building, or to any cause beyond such party's reasonable control.

**28. Surrender.** Subject to and without limiting Section 11 above, LESSEE shall at the expiration or other termination of this Lease remove all of LESSEE'S goods and effects from the Leased Premises. Subject to and without limiting Section 11 above, LESSEE shall deliver to LESSOR the Leased Premises and all keys, locks, thereto, and other fixtures and equipment connected therewith, and all alterations, additions and improvements made to or upon the Leased Premises, including but not limited to any offices, partitions, cold room, plumbing and plumbing fixtures, air conditioning equipment and ductwork of any type, exhaust fans or heaters, burglar alarms, telephone wiring, wooden or metal shelving which has been bolted, welded or otherwise attached to any concrete or steel, member of the Building, compressors, air or gas distribution piping, cabinetry, overhead cranes, hoists, trolleys or conveyors, counters or signs attached to walls or floors, and all electrical work, including but not limited to lighting fixtures of any type, wiring, conduit, EMT, distribution panels, bus ducts, raceways, outlets and disconnects, and excluding the compressors, and any built-in component work stations that LESSEE may install during the term, but excluding any Alterations designated under Section 11 at the time of their approval to be removed by LESSEE and further excluding any hard-wired or hard-plumbed equipment purchased, paid for and installed by LESSEE, such as chemical fume hoods, as long as LESSEE restores the Leased Premises to the condition that it was in prior to the installation of such equipment. LESSEE shall deliver the Leased Premises reasonable wear and tear and damage by fire or other casualty only excepted. In the event of LESSEE'S failure to remove any of LESSEE'S property from the premises, LESSOR is hereby authorized, without liability to LESSEE for loss or damage thereto and at the sole risk of LESSEE to remove and store any such property at LESSEE'S expense, or to retain same under LESSOR'S control or to sell at public or private sale, without notice, any or all of the property not so removed and to apply the net proceeds of such sale to the payment of any sum due hereunder, or to destroy such property which shall be conclusively deemed to have been abandoned.

**29. Quiet Enjoyment.** So long as this Lease is in full force and effect, LESSEE shall quietly enjoy the Leased Premises without hindrance or molestation by LESSOR or any party claiming by, through or under LESSOR or any party claiming a superior interest to the LESSOR.

**30. Miscellaneous Provisions.** The invalidity or unenforceability of any provision of this Lease shall not affect or render invalid or unenforceable any other provision hereof. The obligations of this Lease shall run with the land, and this Lease shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, except that LESSOR shall be liable only for obligations occurring while LESSOR is landlord hereunder. The obligations of LESSOR and LESSEE hereunder shall not be binding upon any director, officer, shareholder, partner, Trustee or beneficiary of such party. Notwithstanding the definition herein of "Commencement Date", "Termination Date", or "Term", or LESSOR'S obligations to deliver the Premises, this Lease shall be binding and enforceable as against the parties hereto as of the date of its execution,

**31. Waivers and Legal Limitations.** No consent or waiver, express or implied, by LESSOR or LESSEE, to or of any other breach of the other party of any covenant, condition or duty of that party shall be construed as a consent or waiver to or of any other breach of the same or any other covenant, condition or duty. If LESSEE is several persons or a partnership, LESSEE'S obligations are joint or partnership and also several. Unless repugnant to the extent. "LESSOR" and "LESSEE" mean the person or persons, natural or corporate, named above as LESSOR and as LESSEE respectively, and their respective heirs, executors, administrators, successors and assigns. In any case where either party is required to do any act other than the payment of Rent, delays caused by or resulting from acts of god, war, civil commotion, acts of terrorism, fire, flood or other casualty, labor strikes or picketing, shortages of labor, materials or equipment, unusual or onerous government regulations, unusually severe weather or other causes beyond such party's reasonable control shall not be counted in determining the time during which such act shall be completed, whether such time be designated as a fixed date, a fixed time, or a "reasonable time" and such time shall be deemed to be extended by the period of such delay.

**32. Lessor's Delivery of the Leased Premises; Early Access.** LESSOR shall substantially complete the work set forth on Exhibit D (the "LESSOR'S Build-Out"), at LESSOR'S sole cost and expense, prior to delivery of the Lease Premises to LESSEE on or before November 1, 2009 (or the Outside Termination Date as the case may be under Section 1 hereof). The Delivery Date shall be established by delivery of a notice to LESSEE informing it that the LESSOR'S Build-Out is substantially complete and that there is a valid Certificate of Occupancy for the Leased Premises and Building, and by turning over the Leased Premises to the LESSEE (the "Delivery Notice"), which Delivery Notice shall be delivered to LESSEE at least five (5) days prior to the Delivery Date; provided, however, that the LESSOR'S Build-Out shall not be deemed substantially complete and the Delivery Date shall not be deemed to occur unless and until all LESSOR'S Build-Out has been performed, other than any routine details of construction, the non-completion of which does not materially interfere with LESSEE'S use of the Premises (the "Punch List Items"). Following the Delivery Notice, LESSEE shall have the right to inspect the Leased Premises with LESSOR for purposes of agreeing upon the Punch List Items. With the exception of the Punch List Items and any latent defects, LESSEE shall be deemed to have accepted the condition of the Premises as of the



Delivery Date. LESSOR represents that it currently has a Certificate of Occupancy for the 4<sup>th</sup> and 5<sup>th</sup> floors of the Building allowing use for general office, which includes laboratory use, and upon performance of LESSOR's Build-Out and delivery of the Leased Premises on the Delivery Date, LESSEE may use the Premises for its Permitted Uses; subject however to requirements for alterations LESSEE may perform after the Delivery Date and other permits that are LESSEE's responsibility hereunder to identify, procure and maintain.

LESSOR shall deliver the Leased Premises on the Delivery Date in its "AS/IS" condition in all respects and without representations or warranties of any kind or nature, except as otherwise set forth herein and also except that (i) they conform to LESSOR's standard Building specifications and that they comply with applicable laws, codes and ordinances, including without limitation the Americans with Disabilities Act, (ii) all base building systems serving the Premises, including without limitation electrical, plumbing and HVAC systems, are in good operating condition and repair, and (iii) the laboratory-specific mechanical, electrical, acid neutralization, HVAC and plumbing systems within or serving the Premises are delivered in good operating condition and repair. Additionally, on the Delivery Date the Leased Premises shall be delivered with a separate acid neutralization system for LESSEE's exclusive use, and expressly subject to LESSEE's obligation to obtain its own MWRA permit therefor. It is the intention of the parties that substantial completion of LESSOR's Build-Out shall be deemed to be the "turnkey" condition contemplated herein. LESSOR shall complete the Punch List Items after the Delivery Date, in a timely and complete fashion, in a manner that does not interfere with LESSEE's use and occupancy of the Premises, and in any event within thirty (30) days of the Delivery Date (subject to availability of labor and materials, and any Force Majeure occurrences).

Provided that LESSEE does not interfere with any LESSEE Build-Out work being performed by LESSEE or its contractors, LESSEE shall have the right to access the Leased Premises prior to the Delivery Date (but at all times through and in coordination with the LESSOR) to make its initial improvements to the Premises, including but not limited to installing cabling and related equipment for voice, data and security systems and equipping the Premises for laboratory and research use, commencing within 10 days after execution of this Lease by LESSOR and LESSEE for the cabling work, and upon LESSOR's approval of LESSEE's plans and specifications as contemplated above for any other work. LESSEE shall deliver copies of LESSEE's plans and specifications for its cabling work for voice, data and security prior to the commencement of such work by LESSEE, subject to LESSOR's approval which approval shall not be unreasonably withheld, conditioned or delayed, LESSEE's customized improvements to the Leased Premises, including without limitation all cabling and laboratory equipment shall be provided and installed at LESSEE's sole cost and expense.

Notwithstanding the Delivery Date or subsequent Commencement Date as contemplated in Section 1 hereof, this Lease shall take effect and be binding upon the parties hereto as of its execution.

Notwithstanding any provision to the contrary contained in this Lease, LESSEE shall also be entitled to reasonable access to the Leased Premises from time to time, through and accompanied by the LESSOR, upon execution of this Lease for the purpose of planning its interior design and layout.

**33. Option to Extend.** LESSEE, provided there is no uncured default at the time of exercise nor have there been more than two Material Defaults (as defined below), shall have the option to extend the Term of this Lease as to the Leased Premises, on the terms and conditions herein, for one additional period of thirty six (36) months at the then current "Market Rent", (including annual escalations thereon for each year of the extended term based on increases in the Consumer Price Index or fixed increases, as the case may be, as determined by then prevailing market forces), (herein, the "Extended Term"). For purposes of this Section 33, a Material Default shall be any breach of LESSEE'S obligations beyond applicable cure periods to pay the Security Deposit Amount or any installment of Annual Base Rent or any Additional Rent as set forth in Section 21(a), to comply with LESSEE'S insurance requirements under Section 17 or environmental requirements under Section 26 or the occurrence of a bankruptcy or other events set forth in Section 21(c). Said Extended Term shall commence, subject to proper exercise in each instance of LESSEE'S option hereunder, on the Termination Date of the original Term, and shall terminate on that date which is thirty six (36) consecutive months after the original Termination Date. LESSEE shall exercise its option by delivering to LESSOR its written notice not later than nine (9) full months prior to the original Termination Date. Once delivered, written notice to extend is irrevocable.

"Market Rent" as used herein shall be that rent charged for comparable first class research laboratory and office space in the mid-Cambridge submarket as of the end of the original Term, but in no event shall "Market Rent" for the Premises be deemed to be less than Annual Base Rent under this Lease for the last Lease Year (annualized) of the Original Term. If, after good faith attempts prior to the expiration of the original Term, the LESSOR and LESSEE cannot agree on a figure representing Market Rent, then either party, upon written notice to the other, may request arbitration of the issue as provided in this section. Within fourteen (14) days of the request for arbitration, each party shall submit to the other the name of one unrelated individual or entity with proven expertise in the leasing of commercial real estate in greater Boston/Cambridge to serve as that party's appraiser. Each appraiser shall be paid by the party selecting him or it. The two appraisers shall each submit their final reports to the parties within thirty (30) days of their selection. The two appraisers shall meet within the next fourteen (14) days to reconcile their reports and collaboratively determine the Market Rent. They shall make their determination in writing, including a statement if such is the case, that they are at an impasse. Such a statement of impasse shall be submitted to the parties along with the Market Rent figure which each appraiser has selected and his reasons and substantiation therefor. The appraisers, in case of an impasse, shall also agree on one unrelated individual or entity with expertise in commercial real estate in greater Boston, who shall evaluate the reports of the two original appraisers and within fourteen (14) days of

submission of the issue to him, make his own determination as to a figure representing Market Rent. The determination of this individual or entity (i.e. arbitrator) absent, fraud, bias or undue prejudice shall be binding upon the parties.

Annual Base Rent and Additional Rent during any Extended Term shall be payable in advance, in equal monthly installments on the first day of each calendar month.

**34. Extended Term Additional Rent.** LESSEE in addition to the sums payable annually to LESSOR as Annual Base Rent, shall pay to LESSOR for each year of any Extended Term, as Additional Rent, LESSEE'S Allocable Percentage (as determined by the approximate total rentable space leased) for Operating Expenses, Real Estate Taxes and Utilities as contemplated in Sections 3, 4 and 7 hereof.

**35. Estoppel Certificates.** Upon not less than fifteen days prior written request by either party, the other party shall execute, acknowledge and deliver to the requesting party a statement in writing certifying that this Lease is unmodified and in full force and effect and that LESSEE has at the time of such statement no defenses, offsets or counterclaims against its obligations to pay Annual Base Rent and Additional Rent and any other charges (in the case of any such certificate to be delivered by LESSEE) and to perform its other covenants under this Lease (or, if there have been any modifications that the same is in full force and effect as modified and stating the modifications and, if there are any defenses, offsets or counterclaims, setting them forth in reasonable detail), and the dates to which the Annual Base Rent and Additional Rent and other charges have been paid. Any such statement delivered pursuant to this Section may be relied upon by any prospective purchase or mortgagee of the Premises, or any prospective assignee of any such mortgagee or, as applicable the LESSOR or LESSEE.

**36. Governing Law.** This Lease constitutes the full and complete agreement between the parties shall be construed under and according to the laws of the Commonwealth of Massachusetts. Any provision of this Lease which is deemed void or unenforceable shall not invalidate or render void or unenforceable the entire Lease.

**37. Recordation.** LESSOR and LESSEE agree to execute and deliver a Notice of Lease substantially in the form attached as Exhibit G for recording at the Middlesex South District Registry of Deeds and/or for registration with the Middlesex South Registry District of the Land Court.

**[Execution Pages Follow]**

IN WITNESS WHEREOF, LESSOR AND LESSEE have hereunto set their hands and seals and intend to be legally bound hereby as of the date first set forth above.

**LESSOR**

**RIVERTECH ASSOCIATES II, LLC**

**By Rivertech Associates II, Inc.,  
its duly authorized Manager**

By: /s/ Robert Epstein

**Robert Epstein, President**

**LESSEE**

**CERULEAN PHARMA INC.**

By: /s/ Oliver Fetzer

**Oliver Fetzer, President and Treasurer**

**CORPORATE OFFICER'S CERTIFICATE**

The undersigned, hereby certifies f 1) that the undersigned is the duly elected President and Treasurer of the corporation executing this Lease, (2) that the LESSEE'S Board of Directors has duly decided as required by law and the LESSEE'S governing documents that the LESSEE shall enter into this Lease and has duly empowered the person who executed this Lease to do so in the name of and on behalf of the LESSEE and (3) that the LESSEE'S execution and performance of this Lease is consistent with and does not contravene or violate the governing documents under which LESSEE is organized .

/s/ Jean M. Silveri

Jean M. Silveri

Secretary

*[Corporate Title]*

9/8/09

*[Date Signed]*

Attach appropriate resolutions

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**INDENTURE OF LEASE**

*by and between*

**RIVERTECH ASSOCIATES II, LLC**

**(“LESSOR”)**

*and*

**CERULEAN PHARMA INC.**

**(“LESSEE”)**

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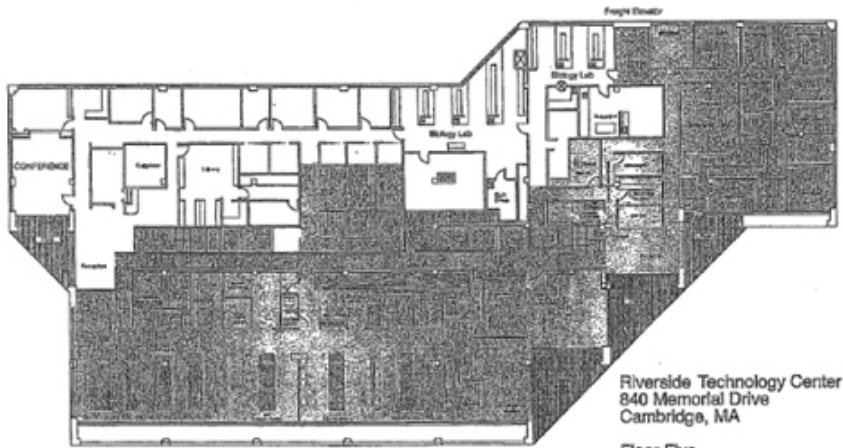
**RIVERSIDE TECHNOLOGY CENTER**



**840 Memorial Drive  
Cambridge, Massachusetts**

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**LEASE EXHIBITS**

**See Lease Plan attached hereto and incorporated herein**



-  Office
-  Laboratory & Lab Support

Riverside Technology Center  
 840 Memorial Drive  
 Cambridge, MA

Floor Five  
 14,198RSF  
 CERULEAN  
 Pharma Inc.  
 June 28, 2009

SMG



See Operating Expense Schedule attached hereto and incorporated herein

**Operating Expenses 2008**

840 Memorial Drive - Riverside Technology Center

<u>DESCRIPTION</u>	<u>Total</u>	<u>FSF</u>
HEAT	\$ 64,285	\$0.50
BUILDING ELECTRIC	\$ 393,372	\$3.05
WATER & SEWER	\$ 19,053	\$0.15
ELEVATOR MAINTENANCE	\$ 15,398	\$0.12
PARKING/CAFE EXPENSE	\$ 27,770	\$0.22
RUBBISH REMOVAL	\$ 17,526	\$0.14
INSURANCE	\$ 33,304	\$0.26
GROUNDS CARE	\$ 24,004	\$0.19
LEGAL/ACCT/ADMIN	\$ 16,771	\$0.13
JANITORIAL SERVICES	\$ 37,737	\$0.29
GENERAL MAINTENANCE	\$ 50,100	\$0.39
HVAC MAINTENANCE	\$ 45,383	\$0.35
LIFE SAFETY SYSTEMS	\$ 24,188	\$0.19
MANAGEMENT *	\$ 281,571	\$2.18
<b>Total Operating Expenses</b>	<b>\$1,050,462</b>	<b>\$8.16</b>
<b>Real Estate Taxes (FY 2009)</b>	<b>\$ 735,231</b>	<b>\$5.70</b>

\* Based upon 5% of Income but not less than this amount

Tenant's Applicable Percentage Is as follows:

As to the Leased Premises: 11.04%.

See Letter of Credit Form attached hereto and incorporated herein

**[Issuing Bank Letterhead]**

STANDBY LETTER OF CREDIT NUMBER: **[Insert #]** Date: **[Insert Date]**

**BENEFICIARY**

**APPLICANT**

**RIVERTECH ASSOCIATES II, LLC**

C/o The Abbey Group  
575 Boylston Street 8<sup>th</sup> Floor  
Boston, Massachusetts 02116

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**[Insert Applicant's Name Address]**

Gentlemen:

At the request and on the instructions of **[Insert Tenant Name]**, we hereby issue our Irrevocable Letter of Credit in your favor in an amount not to exceed in the aggregate USD **[Insert Amount]** available by your draft(s) drawn at sight on **[Insert Bank Name]** when accompanied by the following:

- (1) The original of this Letter of Credit and amendment(s) if any.
- (2) A statement, on the letterhead of and purportedly signed by an authorized officer of the Beneficiary, dated the same date as the draft, exactly in the format of the attached Exhibit A.

This Letter of Credit, including the attached EXHIBIT A (which form an integral part of the Credit), sets forth in full the terms of our undertaking and such undertaking shall not in any way be modified, amended or amplified by reference to any document, instrument or agreement referred to herein or in which this Letter of Credit is referred to or which this Letter of Credit relates, and any such reference shall not be deemed to incorporate herein by reference any document, instrument or agreement.

It is a condition of this Letter of Credit that it shall be automatically extended, without amendment, for an additional period of one (1) year from the present or any further expiration date, unless forty five (45) days prior to such date, we notify you in writing by overnight courier service that we elect not to renew this Letter of Credit for any such additional period. The FINAL EXPIRY DATE is **[Insert Final Expiration Date]**. Our notice of non renewal will be sent to the Beneficiary, at the address given in this Letter of Credit, unless we are otherwise notified by the Beneficiary, in writing via registered mail, return receipt requested, of a change of address.

Drafts drawn hereunder must be marked: "Drawn under **[Insert Issuing Bank Name]** Irrevocable Letter of Credit Number **[Insert Number]** dated **[Insert Date]**."

We engage with you that all drafts drawn under and in compliance with the terms of this Letter of Credit will be duly honored upon delivery of documents to us at **[Insert]**

**Presentation Location** if presented on or before the close of business on **[Insert Initial Expiration Date]** or any automatically extended date.

Except so far as otherwise expressly stated herein, this Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (1983 Revision) International Chamber of Commerce, Publication No: 400.

Very truly yours,

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Authorized Signature

**IRREVOCABLE LETTER OF CREDIT**

**Exhibit A**

The undersigned is a duly authorized agent of the Landlord, familiar with the Lease to \_\_\_\_\_, dated \_\_\_\_\_; hereby affirms that there has occurred an event of default under the Lease that has not been cured within any allowed notice, grace and cure periods (or alternatively, the Letter of Credit has not be timely renewed as required by the Lease); and that Landlord is entitled to liquidate this Letter of Credit to satisfy said default (or renewal obligations) under the terms and conditions of the Lease, in the amount of \$ \_\_\_\_\_.

**RIVERTECH ASSOCIATES II, LLC**  
**(Landlord)**

By: \_\_\_\_\_

See "Landlord's Build-Out" specifications attached hereto and incorporated herein

**CERULEAN PHARMA, INC.**

Floor Five  
840 Memorial Drive  
Cambridge, MA  
July 22, 2009

**SCOPE OF WORK FOR FACILITY**

**ADMINISTRATIVE AREA**

Partitions: Partitions to be located as indicated on accompanying plan. Existing offices shall be re-used except where otherwise indicated. Existing and new walls to be comprised of gwb over steel studs and will extend from floor to the underside of suspended ceiling. A "tea room" shall be created as indicated in the plan by removing one wall and door in the offices across from the kitchen.

Walls and trim shall be finished with one additional coat of water based paint in building standard color. Additional contrast color on the "entry wall" will be provided if requested by tenant.

Entry Door: Entry to consist of existing glass door with glass sidelight.

Doors: Existing doors to be reused and relocated as necessary. All hardware to be lever handles with brushed stainless finish. New doors to be oak with clear polyurethane finish and lever handles to match existing. Existing push button lock to existing IT room shall be removed and replaced with passage hardware. Doors of offices with existing locksets shall have individual keys with a master key to operate all locks. New door from reception to kitchen hall to be added per plan. Upon request of Tenant, Landlord will take the inner door at office suite opposite conference room and relocate the door to create two distinct offices and access to hall for inner office. Tenant agrees to pay Landlord, prior to taking possession of the premises, for the actual costs of such relocation, not to exceed \$6,800, for the moving of this door if requested by Tenant.

Glass panels: Where they exist, glass panels in oak frames will remain.

Floors: All existing carpet and vinyl base shall be removed. All office and conference areas shall be covered with Shaw Contract nylon loop carpet from "Turn Key Collection" or equal. Tenant's choice of color & pattern from those submitted by Landlord and available in "Extreme Quick-Ship" series. The kitchen, "tea room", IT room and corridor adjacent to these rooms shall be finished with 12x12 vinyl composition tile in tenant's choice of standard color, 4" vinyl cove base shall be installed at intersection of walls and carpet/vct.

Ceilings: Newly replaced ceiling tiles to remain. Stained or damaged ceiling tiles to be replaced. Sprinkler head escutcheons shall be replaced where missing.



Lighting: Newly replaced ceiling lights to remain, any non-functioning bulbs/ballasts to be replaced.

Kitchen: The existing kitchen shall be re constructed as indicated in the drawing consisting of new upper and lower plastic laminate cabinetry and shall include a stainless steel sink with faucet, a new dishwasher and space for an 18cu ft refrigerator (to be provided by Tenant). Walls shall be painted and a new vinyl tile floor shall be installed. An active exhaust fan and grille shall be provided in the kitchen area to provide exhaust for the kitchenette.

HVAC: The base building HVAC distribution system will be inspected and adjusted as necessary to assure distribution, airflow, and proper operation of thermostats and variable air volume (VAV) boxes. Where they exist, supplemental air conditioning shall be inspected and put in operable condition. The existing supplemental air conditioning unit located in the existing IT room shall be serviced to assure proper operation. The tenant shall enter into a preventive maintenance program with an approved HVAC sub contractor for the term of the lease to service all supplementary air conditioning units.

Electrical: Landlord shall provide electrical outlets throughout the administration area and the office space in the R&D area in the form of existing and new 110v outlets as required to meet code requirements. All utilities servicing the tenant's premises and equipment will be separately metered and billed to tenant on a monthly basis based upon an estimate with a true-up based on the actual readings at the end of each calendar year.

Furnishings: No reception desk cubicles, work stations or furniture of any sort shall be provided by the landlord.

Card Access: Landlord will leave existing card access pads for tenant to incorporate into their system at tenant's expense.

## **R&D AREA**

Partitions: Partitions to be located as indicated on accompanying plan. Existing and new walls to be comprised of 5/8" gwb over steel studs and will extend from floor to the underside of suspended ceiling. Walls and trim shall be finished with one additional coat of water based paint in building standard color. The half wall and curtain track in the library area shall be removed but the existing shelving shall remain. Shelves in "tissue culture lab" to be removed and wall repaired.

Doors: Existing doors to be reused and relocated as necessary. New doors to be oak veneer with clear polyurethane finish. All hardware to be lever handles with brushed stainless finish.

Floors: Existing vinyl and base shall remain. The carpet and vinyl base shall be removed in the library/cubicle area and the lab manager's office and replaced with Shaw Contract nylon loop carpet from "Turn Key Collection" or equal in Tenant's choice of color & pattern from those submitted by Landlord and available in "Extreme Quick-Ship" series. Seamless vinyl (Medintech or equivalent) with integral cove base shall be installed in the tissue culture room and autoclave/glass-wash area. New vinyl tile and base shall be installed in the two future "clean room" areas. Carpet in the "systems" office space shall remain, but the existing vinyl base shall be cleaned.

Ceilings: The newly installed ceiling tiles shall remain. Stained or damaged ceiling tiles to be replaced. Sprinkler escutcheons shall be replaced where missing.

Lighting: Existing new 2x4 and 2x2 fluorescent lights shall remain, any non-functioning lights or ballasts to be replaced.

HVAC: The base building HVAC distribution system will be inspected and adjusted as necessary to assure distribution, airflow, and proper operation of thermostats. Existing supplemental air conditioning units in the "equipment room" and the "tissue culture lab" shall be inspected, put in operable condition. The eight existing fume hoods shall be connected to an exhaust system located on the roof and balanced to provide an average of 1,000cfm/hood. An air flow monitoring system as specified by the tenant (equivalent to TEL AFA 500 audio-visual airflow monitor) shall be provided and installed on each of the existing fume hoods by the landlord. The existing make up air system shall be serviced and adjusted to accommodate the requirements of the fume hoods and ducted to the main laboratory. All natural gas servicing the lab, including the make up air units, shall be submetered and billed to tenant on a monthly basis based upon estimates with a true-up based on actual readings at the end of each calendar year. All mechanical systems shall be inspected, serviced and warranted for proper operation for a period of twelve months provided tenant enters into and pays for a preventative maintenance agreement with the building approved HVAC technician. All tenant-related mechanical equipment shall be put on a preventive maintenance agreement with an approved HVAC sub contractor, agreeable to the landlord and paid for by the Tenant for the duration of the Lease. The existing exhaust trunk line which is located along the rear wall of the lab shall be attached to an exhaust fan to be located on the roof and shall provide approximately 500cfm exhaust. Connection of this duct by "elephant trunks", etc shall be the responsibility of the tenant.

Plumbing and Waste: The main cold water supply to the lab shall be located outside the autoclave/glasswash room along with a water check meter and a backflow prevention device. A new hot water heater shall be located in the glasswash room. The existing stainless steel lab sinks with deck mounted eyewashes shall remain in the laboratory benches as indicated in the plan. A

similar sink and sink base cabinet shall be provided in the tissue culture suite. A new plastic laminate benchtop shall be provided in the equipment area as indicated in the plan. Tenant shall provide an ice machine which the landlord shall install adjacent to the backflow prevention device. All lab waste shall be contained in polyethylene piping and lead to an acid waste system consisting of the existing polypropylene tank with limestone chips located in an accessible location below the premises.

Electrical: Landlord shall provide power to various locations within the laboratory in the form of existing 110v and 208v outlets. The main electrical room shall be located as indicated in the drawing and shall contain one 110/208v 100 amp panel fed by the existing backup generator located on the roof. Maintenance of the backup power system shall be done by the landlord and reimbursed to landlord on a pro rata basis by the tenant(s) who utilize it which will be based on the amps each tenant has. If tenant is the only user hooked into the existing backup generator then they would pay for all maintenance for the existing backup generator. Distribution of power from this panel shall be the responsibility of the tenant.

Utilities: All electrical power, natural gas and water to the tenant's premises and equipment will be separately metered and billed to tenant on a monthly basis based upon estimates with a true-up based on actual readings at the end of each calendar year

Specialties: The existing glasswasher shall remain in place and be serviced to assure proper operation. If the glasswasher cannot be made operable, Tenant shall be notified and may request that landlord remove prior to occupancy

The existing cold room shall be removed. Repairs to the floor, ceiling, walls and lights shall be made to integrate this space into the adjacent existing equipment area.

New reagent shelves shall be installed on the remaining three benches which do not have them.

If required, any "berming" of existing cup sinks within the existing fume hoods shall be the responsibility of the tenant.

The existing copper line in the corner of the "dry" lab shall be cut and capped at the ceiling. In addition, the damaged oak sill within the "dry" lab shall be repaired or replaced.

Landlord will repair the damaged case work on the end panel in the glasswash area sink. All other case work is to be delivered as-is.

The acquisition of all permits from local, state and federal agencies required

to commence operation within the space will be the responsibility of the tenant. The laboratory "site clearance report" prepared for the previous tenant shall be provided to the new tenant.

**CERULEAN PHARMA INC. LEASE  
EXHIBIT E**

See LESSEE'S list attached hereto and incorporated herein

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Exhibit E

List of "Permitted Items"

1. Mouse tumor cell lines from ATCC and the National Cancer Institute (NCI)
2. Human tumor cell lines from ATCC and NCI (all BL2 or less and all tested negative for viruses including HIV, hepatitis, etc.)
3. Mouse plasma
4. Human plasma (tested negative for viruses including HIV, hepatitis, etc.)
5. Heat-inactivated bovine serum
6. Non-human antibodies for ELISA tests

See lender SNDA Form attached hereto and incorporated herein

Recording Requested by  
and when Recorded return to:

WELLS FARGO BANK, N.A.  
Commercial Mortgage Servicing  
1320 Willow Pass Road, Suite 300  
Concord, CA 94520

Attention: CMS Asset Admin.  
Loan No.: 700201416

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**SUBORDINATION AGREEMENT  
and  
ESTOPPEL, NON-DISTURBANCE AND ATTORNMENMENT AGREEMENT**

**Tenant's Trade Name:** \_\_\_\_\_

**NOTICE: THIS SUBORDINATION AGREEMENT RESULTS IN YOUR LEASEHOLD ESTATE IN THE PROPERTY BECOMING SUBJECT TO AND OF LOWER PRIORITY THAN THE LIEN OF THE MORTGAGE (DEFINED BELOW).**

This SUBORDINATION AGREEMENT AND ESTOPPEL, NON-DISTURBANCE AND ATTORNMENMENT AGREEMENT ("Agreement") is made as of \_\_\_\_\_, by and between \_\_\_\_\_ ("Tenant") and LASALLE BANK NATIONAL ASSOCIATION, as Trustee for Bear Stearns Commercial Mortgage Securities Inc., Commercial Mortgage Pass-Through Certificates, Series 2004 -TOP 14 ("Lender"), with reference to the following facts and intentions of the parties:

**RECITALS**

- A. \_\_\_\_\_ ("Owner") is the owner of the land and improvements commonly known as \_\_\_\_\_ and more specifically described in Exhibit B attached hereto ("Property") and the owner of the Landlord's interest in the lease identified in Recital B below ("Lease").
- B. Tenant is the owner of the tenant's interest in that lease dated \_\_\_\_\_, executed by Owner, as landlord, and Tenant, as tenant, as amended by instrument(s) dated \_\_\_\_\_. (Said lease is collectively referred to herein as the "Lease").
- C. Owner is indebted to Lender under a promissory note in the original principal amount of \$ \_\_\_\_\_, which note is secured by, among other things, a mortgage, deed of trust, trust indenture or deed to secure debt encumbering the Property ("Mortgage"), dated \_\_\_\_\_ and recorded \_\_\_\_\_ in the Official Records of the County of \_\_\_\_\_, State of \_\_\_\_\_ ("Mortgage").

THEREFORE, The parties agree as follows:

**1. SUBORDINATION.**

- 1.1 **Prior Lien.** The Mortgage, and any modifications, renewals or extensions thereof, shall unconditionally be and at all times remain a lien or charge on the Property prior and superior to the Lease.



- 1.2 **Entire Agreement.** This Agreement shall be the whole agreement and only agreement with regard to the subordination of the Lease to the lien or charge of the Mortgage, and shall supersede and cancel, but only insofar as would affect the priority between the Mortgage and the Lease, any prior agreements as to such subordination, including, without limitation, those provisions, if any, contained in the Lease which provide for the subordination of the Lease to a deed or deeds of trust, a mortgage or mortgages, a deed or deeds to secure debt or a trust indenture or trust indentures.
- 1.3 **Disbursements.** Lender, in making disbursements pursuant to the Note, the Mortgage or any loan agreements with respect to the Property, is under no obligation or duty to, nor has Lender represented that it will, see to the application of such proceeds by the person or persons to whom Lender disburses such proceeds, and any application or use of such proceeds for purposes other than those provided for in such agreement or agreements shall not defeat this agreement to subordinate in whole or in part
- 1.4 **Subordination.** Tenant intentionally and unconditionally waives, relinquishes and subordinates all of Tenant's right, title and interest in and to the Property, to the lien of the Mortgage.

## 2. **NON-DISTURBANCE AND ATTORNMENT.**

- 2.1 **Non-Disturbance.** Notwithstanding anything to the contrary contained in the Lease, so long as there shall exist no breach, default or event of default (beyond any period given to Tenant in the Lease to cure such default) on the part of Tenant under the Lease at the time of any foreclosure of the Mortgage, Lender agrees that the leasehold interest of Tenant under the Lease shall not be terminated by reason of such foreclosure, but rather the Lease shall continue in full force and effect and Lender shall recognize and accept Tenant as tenant under the Lease subject to the provisions of the Lease.
- 2.2 **Attornment.** Notwithstanding anything to the contrary contained in the Lease, should title to the leased premises and the landlord's interest in the Lease be transferred to Lender or any other person or entity ("New Owner") by, or in-lieu of judicial or non-judicial foreclosure of the Mortgage, Tenant agrees, for the benefit of New Owner and effective immediately and automatically upon the occurrence of any such transfer, that:
  - (a) Tenant shall pay to New Owner all rental payments required to be made by Tenant pursuant to the terms of the Lease for the remainder of the Lease term;
  - (b) Tenant shall be bound to New Owner in accordance with all of the provisions of the Lease for the remainder of the Lease term;
  - (c) Tenant hereby attorns to New Owner as its landlord, such attornment to be effective and self-operative without the execution of any further instrument;
  - (d) New Owner shall not be liable for any default of any prior landlord under the Lease, including, without limitation, Owner, except where such default is continuing at the time New Owner acquires title to the leased premises and New Owner fails to cure same after receiving notice thereof;
  - (e) New Owner shall not be subject to any offsets or defenses which Tenant may have against any prior landlord under the Lease, including, without limitation, Owner, except where such offsets or defenses arise out of a default of the prior landlord which is continuing at the time New Owner acquires title to the leased premises and New Owner fails to cure same after receiving notice thereof; and
  - (f) New Owner shall not be liable for any obligations of landlord arising under the Lease following any subsequent transfer of the title to the leased premises by New Owner.

## 3. **ESTOPPEL.** Tenant warrants and represents to Lender, as of the date hereof, that:

- 3.1 **Lease Effective.** The Lease has been duly executed and delivered by Tenant and, subject to the terms and conditions thereof, the Lease is in full force and effect, the obligations of Tenant thereunder are valid and binding, and there have been no modifications or additions to the Lease, written or oral, other than those, if any, which are referenced above in Recital B.
- 3.2 **No Default.** To the best of Tenant's knowledge: (a) there exists no breach, default, or event or condition which, with the giving of notice or the passage of time or both, would constitute a breach or default under the Lease either by Tenant or Owner; and (b) Tenant has no existing claims, defenses or offsets against rental due or to become due under the Lease.

- 3.3 **Entire Agreement.** The Lease constitutes the entire agreement between Owner and Tenant with respect to the Property, and Tenant claims no rights of any kind whatsoever with respect to the Property, other than as set forth in the Lease.
- 3.4 **Minimum Rent.** The annual minimum rent under the Lease is \$ \_\_\_\_\_, subject to any escalation, percentage rent and/or common area maintenance charges provided in the Lease. The "Base Year" for any escalation is 20 \_\_\_\_\_.
- 3.5 **Rental Payment Commencement Date:** The rents stated in Section 3.4 above will begin or have begun on \_\_\_\_\_.
- 3.6 **Rentable area.** The rentable area of the leased premises is \_\_\_\_\_ square feet.
- 3.7 **Commencement Date.** The term of the Lease commenced or will commence on \_\_\_\_\_.
- 3.8 **Expiration Date.** The term of the Lease will expire on \_\_\_\_\_.
- 3.9 **No Deposits or Prepaid Rent.** No deposits or prepayments of rent have been made in connection with the Lease, except as follows: (if none, write "None").
- 3.10 **No Other Assignment.** Tenant has received no notice, and is not otherwise aware of, any other assignment of the landlord's interest in the Lease.
- 3.11 **No Purchase Option or Refusal Rights.** Tenant does not have any option or preferential right to purchase all or any part of the Property, except as follows: \_\_\_\_\_ (if none, write "None").

**4. MISCELLANEOUS.**

- 4.1 **Heirs, Successors and Assigns.** The covenants herein shall be binding upon, and inure to the benefit of, the heirs, successors and assigns of the parties hereto. Whenever necessary or appropriate to give logical meaning to a provision of this Agreement, the term "Owner" shall be deemed to mean the then current owner of the Property and the landlord's interest in the Lease.
- 4.2 **Addresses; Request for Notice.** All notices and other communications that are required or permitted to be given to a party under this Agreement shall be in writing and shall be sent to such party, either by personal delivery, by overnight delivery service, by certified first class mail, return receipt requested, or by facsimile transmission, to the address or facsimile number below. All such notices and communications shall be effective upon receipt of such delivery or facsimile transmission. The addresses and facsimile numbers of the parties shall be:

Tenant:  
NAME OF TENANT HERE

FAX No.:

Lender:

Wells Fargo, N.A., as Master Servicer  
Attn: Asset Administration  
1320 Willow Pass Road, Ste 300  
Concord, California 94520

FAX No.: 925-685-1259

provided, however, any party shall have the right to change its address for notice hereunder by the giving of written notice thereof to the other party in the manner set forth in this Agreement.

- 4.3 **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute and be construed as one and the same instrument.
- 4.4 **Section Headings.** Section headings in this Agreement are for convenience only and are not to be construed as part of this Agreement or in any way limiting or applying the provisions hereof.
- 4.5 **Attorneys' Fees.** If any legal action, suit or proceeding is commenced between Tenant and Lender regarding their respective rights and obligations under this Agreement, the prevailing party shall be entitled to recover, in addition to damages or other relief, costs and expenses, attorneys' fees and court costs (including, without limitation, expert witness fees). As used herein, the term "prevailing party" shall mean the party which obtains the principal relief it has sought, whether by compromise settlement or judgment. If the party which commenced or instituted the action, suit or proceeding shall dismiss or discontinue it without the concurrence of the other party, such other party shall be deemed the prevailing party.

**5. INCORPORATION.** Exhibit A, the Owner's Consent is attached hereto and incorporated herein by this reference.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

"LENDER"

LASALLE BANK NATIONAL ASSOCIATION, as Trustee for Bear Stearns Commercial Mortgage Securities Inc., Commercial Mortgage Pass-Through Certificates, Series 2004 -TOP 14

By: Wells Fargo Bank, National Association, as Master Servicer under the Pooling and Servicing Agreement dated as of May 1, 2004, among Bear Stearns Commercial Mortgage Securities Inc., Wells Fargo Bank, National Association, Centerline Servicing Inc. (f/k/a Arcap Servicing Inc.), LaSalle Bank National Association and ABN AMRO Bank N.V.

By: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Title: \_\_\_\_\_

"TENANT"

NAME OF TENANT HERE

By: \_\_\_\_\_  
 Its: \_\_\_\_\_

**IT IS RECOMMENDED THAT, PRIOR TO THE EXECUTION OF THIS AGREEMENT, THE PARTIES CONSULT WITH THEIR ATTORNEYS WITH RESPECT HERETO.**

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**ALL SIGNATURES MUST BE ACKNOWLEDGED.**

**EXHIBIT A  
OWNER'S CONSENT**

The undersigned, which owns or is about to acquire the Property and the landlord's interest in the Lease, hereby consents to the execution of the foregoing SUBORDINATION AGREEMENT AND ESTOPPEL, NON-DISTURBANCE AND ATTORNMENT AGREEMENT, and to implementation of the agreements and transactions provided for therein.

"OWNER"

**EXHIBIT B**  
**(Description of Property)**

EXHIBIT B to SUBORDINATION AGREEMENT AND ESTOPPEL, NON-DISTURBANCE AND ATTORNMENMENT AGREEMENT dated as of \_\_\_\_\_, executed by \_\_\_\_\_, as "Tenant", and \_\_\_\_\_, "Lender".

All that certain land located in the County of \_\_\_\_\_, State of \_\_\_\_\_, described as follows:

See Notice of Lease attached hereto and incorporated herein

NOTICE OF LEASE

Notice is hereby given pursuant to Chapter 183, Section 4 and Chapter 185, Section 71 of the General Laws, of a lease upon the following terms:

Landlord: Rivertech Associates II, LLC, a Massachusetts limited liability company

Tenant: Cerulean Pharma Inc., a Delaware corporation

Premises: Approximately 14,234 rentable square feet on portions of the fifth floor and fourth floor of the building located on the land known and numbered as 840 Memorial Drive in Cambridge, Massachusetts, as such land is more particularly described on Exhibit A attached hereto.

Term: 40 months, beginning on \_\_\_\_\_, 2009, subject to one (1) right to extend the Term for 36 months pursuant to Section 33 of the Lease

Date of Lease: August \_\_\_\_\_, 2009

The premises demised by the Lease constitute a portion of the premises registered in the name of the Landlord in Certificate of Title No. \_\_\_\_\_, issued by Middlesex South Registry District of the Land Court.

This Notice of Lease has been executed merely to give notice of the Lease, and all of the terms, conditions and covenants thereof which are incorporated herein by reference. The parties hereto do not intend this Notice of Lease to modify or amend the terms, conditions and covenants of the Lease.



Executed as an instrument under seal as of the       day of       , 2009.

LANDLORD:

RIVERTECH ASSOCIATES II, INC.  
a Massachusetts limited liability company

By: \_\_\_\_\_  
Name:  
Title:

TENANT:

CERULEAN PHARMA INC.,  
a Delaware corporation

By: \_\_\_\_\_  
Name:  
Title:

COMMONWEALTH OF MASSACHUSETTS

, ss.

, 2009

On this day of , 2009, before me, the undersigned notary public, personally appeared , proved to me through satisfactory evidence of identification, which was , to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose, as for Rivertech Associates II, LLC.

(official signature and seal of notary)

My commission expires

COMMONWEALTH OF MASSACHUSETTS

, ss.

, 2009

On this day of , 2009, before me, the undersigned notary public, personally appeared , proved to me through satisfactory evidence of identification, which was , to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose, as for Cerulean Pharma Inc.

(official signature and seal of notary)

My commission expires

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EXHIBIT A

Legal Description

**RIVERSIDE TECHNOLOGY CENTER**

**LEASE EXTENSION AND MODIFICATION AGREEMENT**

**TO THE LEASE BETWEEN**

**RIVERTECH ASSOCIATES II LLC AND CERULEAN PHARMA, INC.**

This Lease Extension and Modification Agreement entered into this 6<sup>th</sup> day of June, 2012 by and between **Rivertech Associates II LLC**, a Massachusetts limited liability company with a principal address c/o The Abbey Group, 575 Boylston Street Boston, Massachusetts 02116, (the "Lessor"); and **Cerulean Pharma Inc.**, with a business address at 840 Memorial Drive Cambridge, Massachusetts (the "Lessee"); relative to a certain Lease between Lessor and Lessee dated September 8, 2009 referred to herein as the "Original Lease" for certain office space in the building at 840 Memorial Drive Cambridge, Massachusetts as identified therein (the "Leased Premises"). The Original Lease as modified by this Lease Extension and Modification Agreement shall be referred to herein as the "Lease".

**WHEREAS**, the Lessee desires to extend the Term of the Original Lease, which is to expire at the end of the current stated Term on February 28, 2013, on terms and conditions agreeable to both Lessor and Lessee as a modification to the Original Lease, and Lessor assents to such extension of the Term by the Lessee on this basis;

**THEREFORE**, in consideration of One (\$1.00) Dollar and the other good and valuable consideration recited herein, effective and irrevocable as of the date hereof, the Lessor and Lessee hereby agree as follows:

**1. Modification to Original Lease/Extension of Term**

Lessee agrees to lease the Leased Premises commencing as of March 1, 2013 for an additional period of three (3) years, beginning on March 1, 2013 (the "Extension Commencement Date") and ending on February 29, 2016 (the "Termination Date"); which additional period shall be referred to as the "Extended Term" or "Term". The first Lease Year under this Extended Term starts on March 1, 2013 and ends on February 28, 2014; the second Lease Year under this Extended Term starts on March 1, 2014 and ends on February 28, 2015; and the third Lease Year under this Extended Term starts on March 1, 2015 and ends on February 29, 2016.

Notwithstanding the commencement of the Extended Term on the Extension Commencement Date hereunder, this Lease Extension is to be considered a valid and binding obligation of the parties effective as of the date of execution, with the Original Lease to continue to govern the Lessee's use and occupancy of the Leased Premises hereunder through the Term of the Original Lease and up to the Extension Commencement Date hereunder. Thereafter, the Original Lease as modified and

amended by this Lease Extension and Modification Agreement shall conjunctively be the "Lease" as between the parties for the Extended Term.

**2. Terms and Conditions**

Lessee shall lease the Leased Premises commencing as of the Extension Commencement Date on the same terms and conditions of the Original Lease, as modified by this Lease Extension and Modification Agreement, with exception only for those provisions as to which Lessor and Lessee have already performed their obligations as of the date hereof, (for example, Lessor has heretofore delivered the Leased Premises and Lessee has accepted the same).

**3. Base Rent and Additional Rent**

Base Rent for each lease year of the Extended Term shall be as follows:

First Lease Year:	\$ 597,828.00 (\$ 49,819.00 per month)
Second Lease Year:	\$ 612,062.00 (\$ 51,005.17 per month)
Third Lease Year:	\$ 626,296.00 (\$ 52,191.33 per month)

In all instances Base Rent shall be payable in the corresponding monthly installments set forth above, due on the first of each month, in advance, and in all other respects shall be subject to the same provisions relating to Base Rent as set forth under the Original Lease.

In addition to Base Rent, Lessee shall continue to be responsible to pay all Additional Rent (Operating Expenses) under Section 3 of the Original Lease and all Additional Rent (Taxes) under Section 4 thereof, as invoiced by Lessor during the Extended Term.

All Base Rent, Additional Rent and other sums due as Rent shall be payable and in all other respects shall be governed during the Extended Term as contemplated under the Original Lease. All other costs and expenses for utilities and services and attendant to operation of the Leased Premises shall continue to be borne by the respective parties during the Extended Term as set forth in the Original Lease.

The Security Deposit currently held by the Lessor shall continue to be held by Lessor during the Extended Term (and any Renewal Term as defined herein).

**4. Permitted Uses**

The Permitted Uses in the Basic Data of the Original Lease, and all conditions attached thereto, are hereby restated and affirmed and shall govern the use and occupancy of the Leased Premises throughout the Extended Term.

**5. Leased Premises in “AS/IS” Condition - No Defaults**

Lessee hereby acknowledges it is currently in possession of the Leased Premises and accordingly accepts the same for the Extended Term in its current “AS/IS” condition, without representation or warranty of any kind or nature arising from the extension of the Lease by Lessor and Lessee.

Lessor shall make certain improvements and alterations to the office area of the Leased Premises per the attached plan (“Final Plan 5/29/12”) with finishes commensurate with the existing office space of the Leased Premises (the “Improvement Work”). Subject to force majeure, Lessor will cause its contractor to commence the Improvement Work during the week that begins on June 11, 2012 and use commercially reasonable efforts to cause the contractor to substantially complete the Improvement Work within 6 weeks of its commencement, subject to such access limitations as may be imposed by Lessee (as follows) given the scope, timing and sequencing of the work to be performed; but without liability if such work is not complete despite Lessor’s use of commercially reasonable efforts. Lessor will consult with Lessee on the contractor’s daily work hours, and Lessee and Lessor will cooperate so that the contractor performs a significant amount of the Improvement Work outside of Lessee’s normal business hours. During the pendency of the aforesaid Improvement Work, Lessor shall provide Lessee with a conference room in another portion of the Building accommodating twelve (12) individuals at no additional charge therefor.

Lessor and Lessee each acknowledge that to the best of each of their respective knowledge, there are no material defaults by either presently existing under the Lease.

**6. Brokers**

The parties hereby agree there are no brokerage or other third party fees or costs involved in this transaction and each agrees to indemnify, defend and hold harmless the other from and against any claims for brokerage fees, commissions or other such payments arising from this transaction.

**7. Parking**

Lessee’s rights to parking shall be as set forth in the Original Lease. Tenant shall be entitled to subscribe for additional parking spaces if Lessor determines such spaces are available in the Building garage.

**8. Lessee’s Option to Renew**

Lessee, provided it is not then in default under this Lease after notice and the expiration of any applicable cure period, and further provided there have not been more than two Material Defaults (as defined in Section 33 of the Lease) during the Lease Term, shall have an option to extend its tenancy as to the Leased Premises, on the terms and

conditions herein, for one additional period of thirty six (36) months at the then current "Market Rent", (including annual escalations thereon for each year of the extended term based on increases in the consumer price index or fixed increases, as the case may be, in accordance with then prevailing market forces), (herein, the "Renewal Term"). Said Renewal Term shall commence, subject to proper exercise of Lessee's option hereunder, at the end of the Extended Term, and shall terminate on that date which is thirty six (36) months after the end of this Extended Term.

Lessee shall exercise its option by delivering to Lessor its written notice not later than nine (9) full months prior to the end of this Extended Term (i.e. prior to the start of the third Lease Year hereunder). Once delivered, written notice to extend is irrevocable.

"Market Rent" as used herein shall be that rent charged for comparable first class research laboratory and office space in the mid-Cambridge submarket as of the end of the original Term; but in no event shall "Market Rent" for any year of the Renewal Term be less than that figure payable by Lessee for the third Lease Year of this Extended Term. If, after good faith attempts, but no later than sixty (60) days prior to the expiration of the original Term, the Lessor and Lessee cannot agree on a figure representing Market Rent, then either party, upon written notice to the other, may request arbitration of the issue as provided in this section. Within fourteen (14) days of the request for arbitration, each party shall submit to the other the name of one unrelated individual or entity with proven expertise in the leasing of commercial real estate in greater Boston/Cambridge to serve as that party's appraiser. Each appraiser shall be paid by the party selecting him or it. The two appraisers shall each submit their final reports to the parties within thirty (30) days of their selection. The two appraisers shall meet within the next fourteen (14) days to reconcile their reports and collaboratively determine the Market Rent. They shall make their determination in writing, including a statement if such is the case, that they are at an impasse. Such a statement of impasse shall be submitted to the parties along with the Market Rent figure which each appraiser has selected and his reasons and substantiation therefor. The appraisers, in case of an impasse, shall also agree on one unrelated individual or entity with expertise in commercial real estate in greater Boston, who shall evaluate the reports of the two original appraisers and within fourteen (14) days of submission of the issue to him, and make his own determination as to the figure representing Market Rent. The determination of this individual or entity (i.e. arbitrator) absent, fraud, bias or undue prejudice shall be binding upon the parties. Notwithstanding the foregoing, in no event shall Market Rent for the first Lease Year of the Extended Term be less than the Annual Base Rent for the last year of the Term prior to such Extended Term based on the monthly installment thereof for the last month thereof.

Annual Base Rent and Additional Rent during the Renewal Term shall be payable in advance, in equal monthly installments on the first day of each calendar month.

Lessee shall continue to pay Additional Rent (Operating Expenses) and Additional Rent (Real Estate Taxes) during the Renewal Term. All Base Rent, Additional Rent and other sums due as Rent shall be payable and in all other respects shall be governed during the Renewal Term as contemplated under the Original Lease. All oilier costs and expenses

for utilities and services and attendant to operation of the Leased Premises shall continue to be borne by the respective parties during the Renewal Term as set forth in the Original Lease. (See Lease sections 3, 4 and 7).

## **9. Expansion Space Option**

Lessee, provided it is not then in default after notice and the expiration of any applicable cure period, and further provided it shall not have defaulted beyond any applicable notice and cure period during the Lease Term, is hereby entitled to receive advance written notice, as a right of first offer from Lessor during the Term of this Lease (as it may be extended), that certain contiguous space on the fifth (5<sup>th</sup>) floor of the Building (currently occupied by Seaside Therapeutics, LLC) (the "ROFO Space") will be offered to third parties for leasing (the "ROFO Notice"), which ROFO Notice shall set forth the Rent and other economic terms at which such space will be so offered.

Lessee shall be entitled to receive a ROFO Notice and to exercise its ROFO Rights (as defined below) as follows:

Lessee shall have the right, within twenty one (21) days from the delivery of Lessor's ROFO Notice, to elect to lease the ROFO Space at the Rent, term, and other economic terms specified in Lessor's ROFO Notice and otherwise on the terms of this Lease or to negotiate with Lessor and to execute a binding letter of intent to lease said space at a Rent and on other terms and conditions mutually agreeable to Lessor and Lessee (the Lessee's "ROFO Rights"). If Lessee shall not elect to lease such space, or if no binding letter of intent with alternate Rent and terms is executed by Lessor and Lessee during that twenty one (21) day period, then Lessor shall be free to market and lease the space offered by the ROFO Notice to any third party, in its sole discretion and without any continuing obligation to Lessee under this Section 9 except as set forth below. Lessee's actual rights to lease and occupy the ROFO Space shall be contingent upon and shall accrue only if and when the ROFO Space is vacated and surrendered by the current lessee and occupants thereof.

If Lessee shall fail to elect to lease any space offered by the ROFO Notice as aforesaid, then notwithstanding anything to the contrary contained in the preceding paragraph Lessor may thereafter lease such space to any third party at a Rent of not less than 90% of the Rent proposed to Lessee in the applicable ROFO Notice (comparatively equalized to account for all factors contributing to the determination of Rent for the premises); but if the proposed lease to any third party is less than 90% of the Rent proposed in the applicable ROFO Notice (comparatively equalized as aforesaid), then Lessor shall be required to re-offer the space to Lessee pursuant to this section.

Time is of the essence in the exercise of Lessee's ROFO Rights as set forth above.



**10. Termination of Lease on New Lease Execution**

If Lessor and Lessee enter into a new separate lease for space in the Building equal to or greater than twenty thousand (20,000) rentable square feet and for a term of three (3) years or greater (without obligation by” either party to do so by any terms or provisions of this Lease Extension agreement) then Lessor will terminate the Original Lease as modified hereby as of the rent commencement date of said new lease; and Lessee shall vacate and surrender the Leased Premises hereunder at a date mutually agreeable to Lessor and Lessee.

**11. Exhibit E Supplementation and Substitution**

Lessor and Lessee hereby agree that Exhibit E under the Original Lease is hereby superseded by Exhibit E attached hereto.

**12. Integration of Documents; Supremacy**

The parties hereto intend that this Lease Extension and Modification Agreement operates to amend and modify the Original Lease, and that those two documents shall be interpreted conjunctively; with any express conflict between the two to be resolved in favor of the stated terms of this Lease Extension and Modification Agreement. Except as modified hereby, all other terms and conditions of the Original Lease shall remain unchanged and enforceable in a manner consistent with this Lease Extension And Modification Agreement.

This Agreement shall be governed by the laws of the Commonwealth of Massachusetts. Any provisions deemed unenforceable shall be severable, and the remainder of this Lease Extension and Modification Agreement and the Original Lease shall be enforceable in accordance with their terms.

Witness our hands and seals as of the date first written above.

**LESSOR**  
**RIVERTECH ASSOCIATES II, LLC**

By: /s/ illegible

its duly authorized Manager

**LESSEE**  
**CERULEAN PHARMA, INC.**

By: /s/ Jean M. Silveri

its duly authorized President/Vice President

By: /s/ Karen L. Roberts

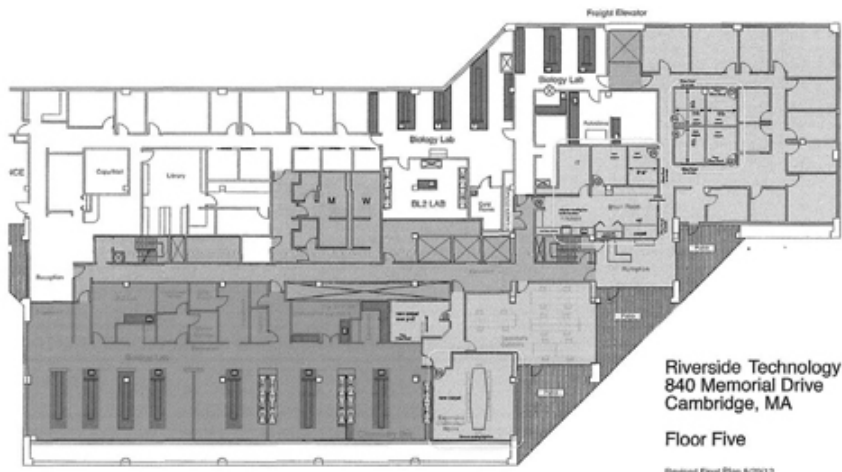
Its duly authorized Treasurer/Ass't Treasurer

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**Exhibit E**

**List of “Permitted Items”**

1. Mouse tumor cell lines from ATCC, NCI and other vendors. All cell lines are classified as BL-1 by the respective sources.
2. Human tumor cell lines from ATCC, NCI, Cell Biolabs, AddexBio and other vendors. All cell lines are classified as BL-1 by the respective sources.
3. Human, mouse and rat plasma. Human plasma tested negative for pathogens, e.g., HIV, hepatitis, etc.
4. Human blood and blood cells, tested negative for pathogens, e.g., HIV, hepatitis, etc.
5. Human, monkey, dog, mouse and rat urine
6. Human antibody drugs, e.g., Humira
7. Monkey, mouse rat and dog blood.
8. Formalin-fixed human tissue and histology slides
9. Monkey, bovine, goat and horse serum
10. Recombinant human proteins, e.g., growth factors
11. Goat, mouse, rabbit and rat antibodies, e.g., for ELISA and tissue staining use



Riverside Technology Center  
 840 Memorial Drive  
 Cambridge, MA

Floor Five

Revised Final Plan 5/20/12

- Office
- Laboratory
- Laboratory Support



Riverside Technology Center  
 840 Memorial Drive  
 Cambridge, MA

Floor Five

Revised Final Plan 5/29/12

- Office
- Laboratory
- Laboratory Support

**Cerulean Pharma, Inc.**  
Riverside Technology Center  
840 Memorial Drive  
Cambridge, MA 02139

June 5, 2012

**VIA FEDERAL EXPRESS**

Rivertech Associates II, LLC  
(Attn: Dan Garvey, CFO)  
c/o The Abbey Group  
575 Boylston Street  
Boston, Massachusetts 02116

Re: Lease dated September 8, 2009 between Rivertech Associates II, LLC, as Lessor, and Cerulean Pharma, Inc., as Lessee (the "Lease")

Dear Sir:

This letter constitutes notice to Rivertech Associates II, LLC ("Rivertech"), as Lessor under the above-defined Lease, that Cerulean Pharma, Inc. ("Cerulean") hereby exercises its option to extend the Term of the Lease pursuant to Section 33 of the Lease and the letter agreement dated May 16, 2012 between Cerulean and Rivertech as to the deadline for this notice of exercise.

The "Market Rent" for the "Extended Term" (as such terms are defined in the Lease) shall be as set forth in the attached "Lease Extension and Modification Agreement" dated June 6, 2012 (the "Extension Agreement"), which you have provided to us. We have executed two counterparts of the attached Extension Agreement and enclose them with this letter. Please have an authorized officer of Rivertech execute both counterparts and return one fully executed counterpart to us. A copy of this letter is also being sent to you via email.

We look forward to continuing our tenancy at Riverside Technology Center. Thank you.

Cerulean Pharma, Inc.

By: /s/ Jean M. Silveri  
Name: Jean M. Silveri  
Title: SVP, General Counsel

cc: (Via Federal Express, with Enclosures)  
Christopher C. Tsouros, Esq.  
Posternak Blankstein & Lund LLP  
Prudential Tower  
800 Boylston Street  
Boston, Mass. 02199

Cerulean Pharma, Inc.  
Riverside Technology Center  
840 Memorial Drive  
Cambridge, MA 02139

May 16, 2012

Rivertech Associates II, LLC  
(Attn: Dan Garvey, CFO)  
c/o The Abbey Group  
575 Boylston Street  
Boston, Massachusetts 02116

Re: Lease dated September 8, 2009 between Rivertech Associates II, LLC, as Landlord, and Cerulean Pharma, Inc., as Tenant (the "Lease")

Dear Sir:

Cerulean is writing to request the agreement of Rivertech Associates II, LLC ("Landlord") to an extension of time for Cerulean to exercise its right to extend the Term of the Lease under Section 33 of the Lease. Section 33 currently provides that Cerulean, as Tenant, must send written notice of its exercise of the option to extend under Section 33 not later than nine (9) full months prior to the original Termination Date (as defined under the Lease). Cerulean's Board of Directors will be meeting on June 5, 2012, which is five days later than the nine full months prior to the original Termination Date. To enable Cerulean's Board of Directors to take action at its scheduled meeting on June 5th, we are requesting the agreement of Landlord to allow Cerulean to send its notice of exercise no later than June 6, 2012.

Kindly confirm, by signing as indicated below, that Rivertech Associates II, LLC, as Landlord, agrees to an extension of the date for exercise of the option to extend under Section 33 of the Lease to June 6, 2012 so that Cerulean Pharma, Inc., as Tenant, may send its notice of exercise of such option to extend pursuant to the Lease to Landlord no later than June 6, 2012. Thank you for your consideration.

Cerulean Pharma, Inc.

By: /s/ Karen L. Roberts  
Name: Karen L. Roberts  
Title: SVP Finance and Administration

By its authorized signature below, Rivertech Associates II, LLC, as Landlord, agrees to extend the date for exercise of the option to extend under Section 33 of the Lease so that Cerulean Pharma, Inc., as Tenant, may send its notice of exercise of such option to extend pursuant to the Lease to Landlord no later than June 6, 2012.

Rivertech Associates II, LLC

By: Rivertech Associates II, Inc.  
Its duly Authorized Manager

By: /s/ Robert Epstein  
Robert Epstein, President

## LOAN AND SECURITY AGREEMENT

**THIS LOAN AND SECURITY AGREEMENT NO. 2161** (this "*Agreement*") is entered into as of December 6, 2011, by and between **LIGHTHOUSE CAPITAL PARTNERS VI, L.P.**, ("*Lender*") and **CERULEAN PHARMA INC.**, a Delaware corporation ("*Borrower*") and sets forth the terms and conditions upon which Lender will lend and Borrower will repay money. In consideration of the mutual covenants herein contained, the parties agree as follows:

## 1. DEFINITIONS AND CONSTRUCTION

**1.1 Definitions.** Initially capitalized terms used and not otherwise defined herein are defined in the California Uniform Commercial Code ("*UCC*").

"*ACH*" means the Automated Clearing House electronic funds transfer system.

"*Advance*" means a Loan advanced by Lender to Borrower hereunder.

"*Basic Rate*" means (i) a fixed *per annum* rate of interest equal to 9% during the Interest Only Period; and (ii) a variable *per annum* rate of interest equal to the Index plus the Interest Margin which shall be subject to adjustment as provided in this Agreement. On and after the Loan Commencement Date the Basic Rate shall be fixed and not subject to any further adjustments. Notwithstanding the foregoing, in no event shall the Basic Rate be less than 8.25%.

"*Borrower's Books*" means all of Borrower's books and records, including records concerning Collateral, Borrower's assets, liabilities, business operations or financial condition, on any media, and the equipment containing such information.

"*Capital Lease*" means, for the purpose of this Agreement, a capital lease as is defined and treated for accounting purposes under GAAP as of the date of this Agreement.

"*Collateral*" means: (i) all property in which Lender now has or hereafter obtains a security interest listed on **Exhibit A** attached hereto; and (ii) all products and proceeds of the foregoing, including proceeds of insurance and proceeds of proceeds.

"*Commitment*" means \$10,000,000; comprised of (A) \$5,000,000 ("*Tranche 1*") of which shall be available upon Borrower closing on a Series D preferred stock equity financing pursuant to which the Borrower receives, on or after October 4, 2011, at least \$10,000,000 of aggregate gross proceeds (the "*Equity Financing*") and (B) the remaining \$5,000,000 ("*Tranche 2*") of which shall be available upon (i) Borrower drawing down the entire Tranche 1 and (ii) after March 31, 2012.

"*Commitment Fee*" means \$10,000.

"*Commitment Termination Date*" means the earliest to occur of (i) (A) for Tranche 1, 6 months after the closing of the Equity Financing and (B) for Tranche 2, December 31, 2012; (ii) any Event of Default, (iii) the date on which Oliver Fetzner or another person designated by a majority of the Board of Directors ceases to serve as President and Chief Executive Officer of Borrower; (iv) the date on which at least 2 of the following 3 firms cease to have a representative on Borrower's Board of Directors: Polaris Venture Partners, Venrock Associates, and Lilly Ventures; or (v) the date on which Borrower ceases to be in the business of developing innovative nanopharmaceuticals.

"*Control Agreement*" means an agreement substantially in the form of **Exhibit I** or otherwise acceptable to Lender.

"*Default*" means any event that with the passing of time or the giving of notice or both would become an Event of Default.

"*Default Rate*" means the lesser of 18% per annum or the highest rate permitted by applicable law.

"*Disclosure Schedule*" means the schedule attached as *Schedule 1* hereto.

"*Event of Default*" is defined in **Section 8**.

"*Funding Date*" means any date on which an Advance is made to or on account of Borrower hereunder.



“*Incumbency Certificate*” means the document in the form of **Exhibit E**.

“*Indebtedness*” means (i) all indebtedness for borrowed money or the deferred purchase price of property or services, (ii) all obligations evidenced by notes, bonds, debentures or similar instruments, (iii) all Capital Lease obligations, and (iv) all contingent obligations, with respect to the foregoing, including guaranties of Indebtedness of others and obligations of reimbursement respecting letters of credit.

“*Index*” means the prevailing variable Prime Rate of annual interest as quoted from time to time in the western edition of the Wall Sheet Journal.

“*Interest Margin*” means 5% per annum.

“*Interest Only Period*” means the period commencing on the date of the Advance and continuing until the Loan Commencement Date.

“*Lender’s Expenses*” means all reasonable costs or expenses (including reasonable attorneys’ fees and expenses) incurred in connection with the preparation, negotiation, modification, administration, or enforcement of the Loan or Loan Documents, or the exercise or preservation of any rights or remedies by Lender, whether or not suit is brought, Lender will apply deposits received before the date hereof (including, without limitation, the Commitment Fee) towards Lender’s Expenses.

“*Lien*” means any lien, security interest, pledge, bailment, lease, mortgage, hypothecation, conditional sales and title retention agreement, charge, claim on any of Borrower’s property, or other encumbrance.

“*Loan*” means all of the Advances, however evidenced, and all other amounts due or to become due hereunder.

“*Loan Commencement Date*” means (i) for Advances on or before November 30, 2012, December 1, 2012; and (ii) for Advances on or after December 1, 2012, the first business day of the calendar month following the Funding Date.

“*Loan Documents*” means, collectively, this Agreement, the Warrant, the Notes and all other documents, instruments and agreements entered into between Borrower and Lender in connection with the Loan, all as amended or extended from time to time.

“*Material Adverse Effect*” means a material adverse change in Borrower’s financial condition, the Collateral, or the Borrower’s ability to perform its Obligations under the Agreement.

“*Negative Pledge Agreement*” means an agreement in the form of **Exhibit H**.

“*Note*” means a Secured Promissory Note in the form of **Exhibit B**.

“*Notice of Borrowing*” means the form attached as **Exhibit D**.

“*Obligations*” means all Loans, debt, principal, interest, fees, charges, Lender’s Expenses and other amounts, obligations, covenants, and duties owing by Borrower to Lender of any kind or description (whether pursuant to the Loan Documents or otherwise (with the exception of the Warrant, any stockholder agreement, management rights letter, or other equity related agreement to which Lender is made a party and any inchoate indemnity obligations), and whether or not for the payment of money), whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising, and including any of the same obtained by Lender by assignment or otherwise, and all amounts Borrower is required to pay or reimburse by the Loan Documents, by law, or otherwise.

“*Permitted Indebtedness*” means: (i) the Loan; (ii) unsecured trade debt incurred in the ordinary course of Borrower’s business; and (iii) Indebtedness secured by clauses (ii), (v) and (x) of Permitted Liens.

“*Permitted Liens*” means: (i) Liens in favor of Lender; (ii) Liens disclosed in the Disclosure Schedule, including Liens of Silicon Valley Bank (“SVB”) on specific assets of Borrower financed pursuant to the terms of an equipment loan facility with SVB and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing; (iii) Liens for taxes, fees, assessments or other governmental charges or levies not delinquent or being contested in good faith by appropriate proceedings, that do not jeopardize Lender’s interest in any Collateral; (iv) Liens to secure payment of worker’s compensation, employment insurance, old age pensions or other social security obligations of

Borrower on which Borrower is current and are in the ordinary course of its business; provided none of the same diminish or impair Lender's rights and remedies respecting the Collateral; (v) Liens upon or in any equipment (and including any accessions, attachments, replacements, improvements or proceeds thereto) acquired or held by such entity to secure the purchase price of such equipment or Indebtedness incurred solely for the purposes of financing such equipment or Capital Lease obligations in an aggregate amount at any time outstanding not to exceed \$1,000,000; (vi) licenses or sublicenses of intellectual property granted in the ordinary course of business; (vii) banker's Liens, rights of setoff and similar Liens incurred on deposit and securities accounts of such entities for fees due on such accounts made in the ordinary course of business; (viii) carriers', warehousemen's, mechanics', materialmen's, repairmen's or other like Liens arising in the ordinary course of business which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings; (ix) Liens in favor of customs and revenue authorities which secure payment of customs duties in connection with the importation of goods; (x) Liens on Borrower's account no. 3300680540 with SVB securing reimbursement obligations in connection with letter of credit no. SVBSF005995 in favor of Rivertech Associates II, LLC in the face amount not to exceed \$117,134.00; and (xi) judgment Liens not constituting an Event of Default.

*"Regulated Substance"* means any substance, material or waste the use, generation, handling, storage, treatment or disposal of which is regulated by any local or state government authority, including any of the same designated by any authority as hazardous, genetic, cloning, fetal, or embryonic.

*"Responsible Officer"* means each person as authorized by the board of directors of Borrower as set forth on the Incumbency Certificate.

*"Subsidiary"* means any corporation, limited liability company or other entity type of which a majority of the outstanding capital stock or other equity interests entitled to vote for the election of directors (otherwise than as the result of a default) is owned by Borrower directly or indirectly through Subsidiaries.

*"Term"* means the period from and after the date hereof until the full and final payment and performance of all Obligations.

*"Warrant"* means the Warrant in favor of Lender and its affiliates to purchase securities of Borrower substantially in the form of *Exhibit C*.

**1.2 Interpretation.** References to "Articles," "Sections," "Exhibits," and "Schedules" are to articles, sections, exhibits and schedules herein and hereto unless otherwise indicated. "Hereof," "herein" and "hereunder" refer to this Agreement as a whole. "Including" is not limiting. All accounting and financial computations shall be computed in accordance with generally accepted accounting principles consistently applied ("*GAAP*"). "Or" is not necessarily exclusive. All interest computation shall be based on a 360-day year and actual days elapsed prior to the Loan Commencement Date and on a 360-day year and 30 day month on and after the Loan Commencement Date,

## 2. THE LOANS

**2.1 Commitment.** Subject to the terms hereof, Lender will make Advances to Borrower up to the principal amount of the Commitment, on or before the Commitment Termination Date, Notwithstanding anything in the Loan Documents to the contrary, Lender's obligation to make any Advances or to lend the undisbursed portion of the Commitment shall terminate on the Commitment Termination Date. Repaid principal of the Advances may not be re-borrowed.

**2.2 The Advances.** A Note setting forth the specific terms of repayment will evidence each Advance. No Advance will be made for less than \$1,000,000, unless less than \$1,000,000 remains available under the Commitment for borrowing. Absence of a Note evidencing any portion of the Loan shall not impair Borrower's obligation to repay it to Lender.

### 2.3 Terms of Payment, Repayment,

**(a) Repayment.** Borrower shall repay the principal and pay interest on each Advance on the terms set forth in the applicable Note. Amounts not paid when due hereunder or under the Note shall bear interest at the Default Rate. If a court of competent jurisdiction determines that Lender has received payments that, if interest, would exceed the maximum lawfully permitted, Lender will instead apply such money to fees and expenses and then to early prepayment of principal.

**(b) ACH.** All payments due to Lender must be, at Lender's option, paid to Lender in cash or through ACH. Borrower shall execute and deliver the ACH Authorization Form substantially in the form of *Exhibit G*. If the ACH payment arrangement is terminated for any reason, Borrower shall make all payments due to Lender at Lender's address specified in **Section 11**.

**(c) Default Rate.** While an Event of Default has occurred and is continuing, interest on the Loan shall be increased to the Default Rate. Lender's failure to charge or accrue interest at the Default Rate during the existence of a Default shall not be deemed a waiver by Lender of its right or claim thereto.

**(d) Date.** Whenever any payment due under the Loan Documents is due on a day other than a business day, such payment shall be made on the next succeeding business day, and such extension of time shall be included in the computation of interest or fees, as the case may be.

**2.4 Fees.** Borrower shall pay to Lender the following:

**(a) Commitment Fee.** The Commitment Fee, which has been previously paid by Borrower, and shall be applied by Lender to Lender's Expenses and other Obligations.

**(b) Late Fee.** On demand, a late charge on any sums due hereunder that are not paid when due, in an amount equal to 2% of the past due amount, payable on demand.

**(c) Lender's Expenses.** Within 20 days after request, all Lender's Expenses. Lender's Expenses not paid when due shall bear interest as principal at the Default Rate.

### **3. CONDITIONS OF ADVANCES; PROCEDURE FOR REQUESTING ADVANCES**

**3.1 Conditions Precedent to any and all Advances.** The obligation of Lender to make any Advances is subject to each and every of the following conditions precedent in form and substance satisfactory to Lender in its reasonable discretion: (i) this Agreement, a Note evidencing the Advance, the Warrant, and all other UCC financing statements, and other documents required or as specified herein have been duly authorized, executed and delivered; (ii) no Default or Event of Default has occurred and is continuing; (iii) delivery of a Notice of Borrowing with respect to the proposed Advance; (iv) Lender's security interests in the Collateral are valid and first priority, except for Permitted Liens; and (v) all such other items as Lender may reasonably deem necessary or appropriate have been delivered or satisfied in order to establish or verify compliance with the terms of this Agreement or perfect the security interests contemplated by this Agreement. The extension of an Advance prior to the receipt by Lender of any of the foregoing shall not constitute a waiver by Lender of Borrower's obligation to deliver such item.

**3.2 Procedure for Making Advances.** For any Advance, Borrower shall provide Lender an irrevocable Notice of Borrowing at least 10 business days prior to the desired Funding Date and Lender shall only be required to make Advances hereunder based upon written requests which comply with the terms and exhibits of this Loan Agreement (as the same may be amended from time to time), and which are submitted and signed by a Responsible Officer. Borrower shall execute and deliver to Lender a Note and such other documents and instruments as Lender may reasonably require for each Advance made.

### **4. CREATION OF SECURITY INTEREST**

**4.1 Grant of Security Interest.** Borrower grants to Lender a valid, first priority (subject to Permitted Liens), continuing security interest in all present and future Collateral in order to secure prompt, full, faithful and timely payment and performance of all Obligations.

**4.2 Inspections.** Lender shall have the right upon reasonable prior notice to inspect Borrower's Books, including computer files, and to make copies, and to test, inspect and appraise the Collateral, in order to verify any matter relating to Borrower or the Collateral. Absent an Event of Default, such inspections, appraisals and verifications shall occur no more than once per year.

**4.3 Authorization to File Financing Statements.** Borrower irrevocably authorizes Lender at any time and from time to time to file in any jurisdiction any financing statements and amendments that: (i) name Collateral as collateral thereunder, regardless of whether any particular Collateral falls within the scope of the UCC; (ii) contain any other information required by the UCC for sufficiency or filing office acceptance, including organization identification numbers; and (iii) contain such language as Lender

determines helpful in protecting or preserving rights against third parties. Borrower ratifies any such filings made prior to the date hereof.

## 5. REPRESENTATIONS AND WARRANTIES

Borrower represents, warrants and covenants as follows:

**5.1 Due Organization and Qualification.** Borrower is a corporation duly formed, existing and in good standing under the laws of its state of incorporation and qualified and licensed to do business in, and is in good standing in, any United States domestic state in which the conduct of its business or its ownership of property requires that it be so qualified or in which the Collateral is located, except states other than Massachusetts and Delaware, where the failure to do so would not reasonably be expected to have a Material Adverse Effect.

**5.2 Authority.** Borrower has all corporate power and authority, and has taken all actions, and has obtained all third party consents necessary to execute, deliver, and perform the Loan Documents.

**5.3 Disclosure Schedule.** All information on the Disclosure Schedule is true, correct and complete.

**5.4 Authorization; Enforceability.** The execution and delivery hereof, the granting of the security interest in the Collateral, the incurring of the Obligations, the execution and delivery of all Loan Documents and the consummation of the transactions herein and therein contemplated have been duly authorized by all necessary action by Borrower. The Loan Documents constitute legal, valid and binding obligations of Borrower, enforceable in accordance with their terms, except as enforceability may be limited by bankruptcy or similar laws relating to enforcement of creditors' rights generally.

**5.5 Name and Location, Subsidiaries.** Borrower has not done business under any name other than that specified on the signature page hereof or as set forth on the Disclosure Schedule. The chief executive office, principal place of business, and the place where Borrower maintains its records concerning the Collateral is set forth in **Section 11**. The Collateral is presently located at the address(es) set forth in **Section 11** and on the Disclosure Schedule. Borrower has no Subsidiaries, except those listed on the Disclosure Schedule.

**5.6 Litigation.** All actions or proceedings pending or, to the knowledge of the Borrower, threatened in writing by or against Borrower before any court or administrative agency are set forth on the Disclosure Schedule.

**5.7 Financial Statements.** All financial statements fairly represent in all material respects the financial condition of the Borrower. All statements respecting Collateral that have been or may hereafter be delivered by Borrower to Lender are true, complete and correct in all material respects for the periods indicated.

**5.8 Solvency.** Borrower is solvent and able to pay its debts (including trade debts) as they come due.

**5.9 Taxes.** Borrower has filed all required tax returns, and has paid all taxes it owes other than where the failure to comply would not reasonably be expected to have a Material Adverse Effect.

**5.10 Rights; Title to Assets.** Borrower possesses and owns or has the right to use all necessary assets, rights, trademarks, trade names, copyrights, patents, patent rights, franchises and licenses which it needs to conduct its business as now operated, except where failure to do so would not reasonably be expected to have a Material Adverse Effect. Borrower has good title to its assets, free and clear of any Liens, except for Permitted Liens.

**5.11 Full Disclosure.** No written representation, warranty or other statement made by Borrower in any Loan Document, certificate or statement furnished to Lender in connection with any such Loan Document contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained in such certificates or statements not misleading,

**5.12 Regulated Substances.** Borrower complies and will comply in all material respects with all laws respecting Regulated Substances.

**5.13 Reaffirmation.** Each Notice of Borrowing will constitute (i) a warranty find representation in favor of Lender that there does not exist any Default and (ii) subject to any amended Disclosure Schedule delivered to Lender or any other written disclosure required to be sent to Lender pursuant to the terms hereof, a reaffirmation as of the date of such Notice of Borrowing of all of the representations and warranties contained in this Agreement and the Loan Documents, *provided, however*, if any such amended Disclosure Schedule or such other written disclosure contains any matter which would reasonably be expected to have a Material Adverse Effect, Lender's obligation to make Advances to Borrower hereunder shall be suspended during the pendency of any such Material Adverse Effect condition.

**5.14 Auction Rate Securities.** The Borrower (i) owns no auction rate securities or similar financial instruments directly or indirectly in any brokerage, securities account or other account created by or for the benefit of the Borrower; and (ii) has not created any standing or discretionary purchase order or directive with any brokerage account or broker service to purchase auction rate securities or similar financial instruments on behalf of the Borrower.

## 6. AFFIRMATIVE COVENANTS

Borrower covenants and agrees that it shall do all of the following:

**6.1 Good Standing and Compliance.** Borrower shall maintain all governmental licenses, rights and agreements necessary for its operations or business except where the failure to do so would not reasonably be expected to have a Material Adverse Effect and shall comply in all material respects with all statutes, laws, ordinances and government rules and regulations to which it is subject.

**6.2 Financial Statements, Reports, Certificates.** Borrower shall deliver to Lender: (i) as soon as prepared, and no later than 30 days after the end of each calendar month, a balance sheet, income statement and cash flow statement covering Borrower's operations during such period; (ii) as soon as prepared, but no later than 180 days after the end of the fiscal year or such other time period as approved by Borrower's Board of Directors, audited financial statements prepared in accordance with GAAP, together with an opinion that such financial statements fairly present Borrower's financial condition by an independent public accounting firm reasonably acceptable to Lender; (iii) promptly upon notice thereof, a report of any legal or administrative action pending or, to Borrower's knowledge, threatened in writing against Borrower which is likely to result in liability to Borrower in excess of \$200,000; and (iv) such other financial information as Lender may reasonably request from time to time. Financial statements delivered pursuant to subsections (i) and (ii) above shall be accompanied by a certificate signed by a Responsible Officer (each an "*Officer's Certificate*") in the form of **Exhibit F**.

**6.3 Notice of Defaults.** Promptly upon any Default or Event of Default, deliver an Officer's Certificate setting forth the facts relating to or giving rise thereto, and the Borrower's proposed action with respect thereto.

**6.4 Use; Maintenance.** Borrower, at its expense, shall (i) maintain the Collateral in good condition, reasonable wear and tear excepted, and will comply in all material respects with all laws, rules and regulations regarding use and operation of the Collateral and (ii) repair or replace any lost or damaged Collateral or otherwise use any insurance proceeds to purchase or acquire property necessary for Borrower's business.

**6.5 Insurance.** Borrower, at its own expense, shall maintain insurance in amounts and coverages reasonably satisfactory to Lender. Each general liability, business personal property and casualty insurance policy, as applicable shall: (i) name Lender loss payee with respect to the Collateral or additional insured, as appropriate, (ii) provide for insurer's waiver of its right of subrogation against Lender and Borrower, (iii) provide that such insurance shall not be invalidated by any action of, or breach of warranty by, Borrower and waive set-off, counterclaim or offset against Lender, (iv) be primary without a right of contribution of Lender's insurance, if any, or any obligation on the part of Lender to pay premiums of Borrower. Borrower shall promptly provide Lender with any written notice of cancellation received from any insurer, whether due to cancellation for non-payment or any other reason. Borrower shall furnish all certificates of insurance required by Lender.

**6.6 Loss Proceeds.** So long as no Event of Default has occurred and is continuing, any proceeds of insurance on or condemnation of Collateral shall, at Borrower's election, be used either to repair or replace such Collateral, to purchase or acquire property useful to Borrower's business, or shall be otherwise used or maintained at Borrower's election, in each case, so long as Lender's security interest in such proceeds remains first priority.

**6.7 Taxes.** Borrower shall file all required tax returns, and shall pay all taxes it owes other than where the failure to comply would not reasonably be expected to have a Material Adverse Effect.

**6.8 Further Assurances.** At any time and from time to time, Borrower shall execute and deliver such further instruments and take such further action as Lender may reasonably request to effect the intent and purposes hereof, to perfect and continue perfected and of first priority Lender's security interests in the Collateral, and to effect and maintain ACH payment arrangements. Notwithstanding the foregoing, Borrower shall not be required to obtain or deliver a waiver agreement on the part of any warehousemen or bailee unless such person has possession or control of more than \$100,000 of Borrower's Equipment.

**6.9 Creation of Subsidiaries.** Borrower shall provide Lender not less than 15 days prior written notice of the formation of a Subsidiary, whether domestic or foreign. Borrower shall take all steps necessary at the request of Lender to cause each domestic Subsidiary to be a borrower hereunder or a guarantor hereof and shall cause such Subsidiary to grant a first priority security interest in all of its assets (substantially similar to the Collateral as defined in *Exhibit A*) to Lender and/or cause a pledge of such Subsidiary's capital stock in favor of Lender. Borrower shall take all steps necessary at the request of Lender to pledge in favor of Lender the capital stock of each foreign Subsidiary *provided* that at the request of Borrower, such pledge may be limited to 65% of such Subsidiary's issued and outstanding capital stock. In addition, Borrower agrees that it shall not cause or permit any capital stock of any Subsidiary (whether in existence as of the date hereof or subsequent to the date hereof) to be pledged in favor of any other entity, nor shall it cause or permit possession of the certificates (or other tangible evidence) of such capital stock to be in any person's possession and control other than Borrower or Lender.

## 7. NEGATIVE COVENANTS

Borrower will not do any of the following:

**7.1 Location of Collateral.** Change its chief executive office or principal place of business or remove, except in the ordinary course of Borrower's business or as a result of a force majeure, the Collateral or Borrower's Books from the premises listed in Section 11 or as described in the Disclosure Schedule, without giving 30 days prior written notice to Lender.

**7.2 Extraordinary Transactions.** Enter into any material transaction not in the ordinary course of Borrower's business, including the sale, lease, license or other disposition of its assets, other than (i) sales of inventory in the ordinary course of Borrower's business; (ii) licenses and sublicenses of Borrower's intellectual property assets entered into in the ordinary course of business; (iii) disposition of worn out or obsolete equipment, de minimis amounts of raw materials or de minimis amounts of tangible assets; and (iv) any transaction otherwise permitted under this **Section 7** or not an Event of Default under **Section 8.12**.

**7.3 Restructure.** Make any material change in Borrower's financial structure or business operations or ownership, in each case, which would trigger an Event of Default under **Section 8.12** hereof; create any new Subsidiaries not in accordance with **Section 6.9**; or suspend operation of Borrower's business.

**7.4 Liens.** Create, incur, assume or suffer to exist any Lien of any kind with respect to any of its property, whether now owned or hereafter acquired, except for Permitted Liens.

**7.5 Indebtedness.** Create, incur, assume or suffer to exist any Indebtedness, other than Permitted Indebtedness or cause or suffer any Subsidiary to create, incur, assume or suffer to exist any Indebtedness, other than Permitted Indebtedness,

**7.6 Distributions.** Pay any dividends or distributions, or redeem or purchase, any capital stock, except for repurchases of capital stock from departing employees, directors, or service providers under agreements approved by the Borrower's Board of Directors.

**7.7 Transactions with Affiliates.** Directly or indirectly enter into any transaction with any affiliate which is on terms less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated entity; *provided*, any such transaction shall not be a breach of this **Section 7.7** if approved by a majority of the disinterested members of the Borrower's Board of Directors.

**7.8 Compliance.** (i) Become an "investment company" under the Investment Company Act of 1940 or extend credit to purchase or carry margin stock; (ii) fail to meet the minimum funding requirements of ERISA; (iii) permit a Reportable Event or Prohibited

Transaction, as defined in ERISA, to occur; (iv) fail to comply with the Federal Fair Labor Standards Act; or (v) violate in any material respect any other law or regulation.

**7.9 UCC Effectiveness.** Change its name, jurisdiction of organization, or take any other action that would reasonably be expected to render Lender's financing statements misleading under the UCC, without giving Lender 30 days advance written notice.

**7.10 Deposit and Securities Accounts.** Maintain any deposit accounts or accounts holding securities owned by Borrower except accounts in which Lender has obtained a perfected first priority security interest. Notwithstanding the foregoing, Lender shall not have a perfected security interest in Borrower's deposit number 3300680540 at SVB in the amount of \$117,134.00 which secures letter of credit number SVBSF005995 issued in favor of Rivertech Associates II, LLC. For so long as the Obligations are outstanding, Borrower shall not hold directly or indirectly, purchase or create a purchase order or directive to purchase any auction rate securities or similar financial instruments regardless of whether such securities are to be held by Borrower or through one or more brokerage accounts.

**7.11 Maintenance of Subsidiaries.** Borrower shall not, and shall not permit or cause any Subsidiary to, (i) sell, dispose of, convey, or allow a Lien to arise on any of the assets, including Intellectual Property (as defined in *Exhibit A*) owned by such Subsidiary (and for this purpose, the definition of "Intellectual Property" shall be deemed to refer to such Subsidiary) except for non-exclusive licenses entered into in the ordinary course of business and other Permitted Liens; (ii) divest or "spin-off" any Subsidiary except where as a result of such transaction Borrower and/or Borrower's shareholders or affiliates retain or obtain majority ownership of such Subsidiary; (iii) merge or consolidate any Subsidiary with or into another entity (unless as a result of such merger Borrower and/or Borrower's shareholders or affiliates retain or obtain majority ownership of the surviving entity); (iv) permit a Change of Control (as defined below) of any Subsidiary; (v) permit a Lien other than Permitted Liens, (and for this purpose, the definitions of "Lien" and "Permitted Liens" shall be deemed to refer to such Subsidiary), to arise on, or make a pledge of, any capital stock of any Subsidiary in favor of any person other than Lender; or (vi) materially change the corporate structure and business operations of any of its Subsidiaries. For the purposes of this **Section 7.11**, a "Change of Control" shall mean, any transaction or series of related transactions whereby the Borrower and/or Borrower's shareholders or affiliates of Borrower holding in excess of 50% of the outstanding voting capital stock of any Subsidiary immediately prior to such transaction or transactions, shall own less than 50% of the outstanding voting or capital stock of such Subsidiary immediately following such transaction or transactions other than as a result of a the sale of Borrower's capital stock to a venture capital firm or similar investment fund or institution pursuant to a bona fide equity financing transaction.

## 8. EVENTS OF DEFAULT

Any one or more of the following shall constitute an Event of Default by Borrower hereunder:

**8.1 Payment.** Borrower fails to pay when due and payable in accordance with the Loan Documents any portion of the Obligations, or cancels an ACH payment or transfer Lender has initiated in conformity with the terms hereof *provided, however*, that an Event of Default shall not occur on account of a failure to pay due solely to an administrative or operational error if Borrower had the funds to make the payment when due and makes the payment the business day following Borrower's knowledge of such failure to pay.

**8.2 Certain Covenant Defaults.** Borrower fails to perform any obligation under **Section 6.5** or **6.6**, or violates any of the covenants contained in **Section 7**.

**8.3 Other Covenant Defaults.** Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant, or agreement contained in this Agreement, in any of the other Loan Documents, or in any other present or future agreement between Borrower and Lender and has failed to cure such failure within 30 days after its occurrence.

**8.4 Attachment.** Any material portion of Borrower's assets is attached, seized, subjected to a government levy, lien, writ or distress warrant, or comes into the possession of any trustee or receiver and the same is not returned, removed, waived, stayed, discharged or rescinded within 10 business days.

**8.5 Other Agreements.** There is a default in any agreement to which Borrower is a party resulting in the acceleration of the maturity of any Indebtedness, in an amount greater than \$200,000.

**8.6 Judgments.** One or more judgments for an aggregate of at least \$200,000 is rendered against Borrower and remains unsatisfied, unbonded and unstayed for more than 45 days.

**8.7 Injunction.** Borrower is enjoined, restrained, or in any way prevented by court order from continuing to conduct any material part of its business affairs, or if a judgment becomes a Lien upon any material portion of Borrower's assets.

**8.8 Misrepresentation.** Any representation, statement, or report made to Lender by Borrower was false or misleading when made in any material respect.

**8.9 Enforceability.** Lender's ability to enforce its rights against Borrower or any Collateral is impaired in any material respect, or Borrower asserts that any Loan Document is not a legal, valid and binding obligation of Borrower enforceable in accordance with its terms.

**8.10 Involuntary Bankruptcy.** An involuntary bankruptcy case remains undismissed or unstayed for 60 days or, if earlier, an order granting the relief sought is entered.

**8.11 Voluntary Bankruptcy or Insolvency.** Borrower commences a voluntary case under applicable bankruptcy or insolvency law, consents to the entry of an order for relief in an involuntary case under any such law, or consents or is subject to the appointment of or taking possession by a receiver, liquidator, assignee, trustee, custodian or other similar official of Borrower or any substantial part of its property, or makes an assignment for the benefit of creditors, or fails generally or admits in writing to its inability to pay its debts as they become due, or takes any corporate action in furtherance of any of the foregoing.

**8.12 Merger, Sale or Change of Control.** The occurrence of (i) a merger of Borrower with another entity (whether or not the Borrower is the "surviving entity") whereby the shareholders (and their respective affiliates) of Borrower immediately prior to such merger own less than 50% of the outstanding voting securities of Borrower immediately after such merger; (ii) the sale (in one or a series of related transactions) of all or substantially all of Borrower's assets; or (iii) any transaction (or series of related transactions) other than a transaction that is a bona fide equity financing with the primary purpose of raising capital for Borrower, whereby the shareholders (and their respective affiliates) of Borrower immediately prior to such transaction(s) own less than 50% of the outstanding voting securities of Borrower immediately after such transaction(s), and, in the cases of (i), (ii) and (iii), such acquirer or resulting entity (including, Borrower, if Borrower is the resulting or surviving entity) fails to either: (a) pay off the Obligations in cash at the closing of the acquisition, merger or sale or (b) provide an unconditional, unlimited guaranty or reaffirmation of the Obligations in form and substance satisfactory to Lender and is of a credit quality acceptable to Lender.

## 9. LENDER'S RIGHTS AND REMEDIES

**9.1 Rights and Remedies.** Upon the occurrence and continuance of any Event of Default, Lender may, at its election, without notice of election and without demand, do any one or more of the following, all of which are authorized by Borrower: (i) accelerate and declare the Loan and all Obligations immediately due and payable; (ii) make such payments and do such acts as Lender considers necessary or reasonable to protect its security interest in the Collateral, with such amounts becoming Obligations bearing interest at the Default Rate; (iii) exercise any and all other rights and remedies available under the UCC or otherwise; (iv) require Borrower to assemble the Collateral at such places as Lender may designate; (v) enter premises where any Collateral is located, take, maintain possession of, or render unusable the Collateral or any part of it; (vi) without notice to Borrower, set off and recoup against any portion of the Obligations; (vii) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral, in connection with which Borrower hereby grants Lender a license to use without charge Borrower's premises, labels, name, trademarks, and other property necessary to complete, advertise, and sell any Collateral; (viii) sell the Collateral at one or more public or private sales; and (ix) deliver a notice of "exclusive control" or similar notification under any Control Agreement to which Lender is a party,

**9.2 Power of Attorney in Respect of the Collateral.** Borrower hereby irrevocably appoints Lender (which appointment is coupled with an interest) its true and lawful attorney in fact with full power of substitution, for it and in its name to, effective upon an Event of Default: (i) ask, demand, collect, receive, sue for, compound and give acquittance for any and all Collateral with full power to settle, adjust or compromise any claim, (ii) receive payment of and endorse the name of Borrower on any items of Collateral, (iii) make all demands, consents and waivers, or take any other action with respect to, the Collateral, (iv) file any claim or take any other action, in Lender's or Borrower's name, which Lender may reasonably deem appropriate to protect its rights in the Collateral, or (v) otherwise act with respect to the Collateral as though Lender were its outright owner.



**9.3 Charges.** If Borrower fails to pay any amounts required hereunder to be paid by Borrower to any third party, Lender may at its option pay any part thereof and any amounts so paid including Lender's Expenses incurred shall become Obligations, immediately due and payable, bearing interest at the Default Rate, and secured by the Collateral. Any such payments by Lender shall not constitute an agreement to make similar payments or a waiver of any Event of Default.

**9.4 Remedies Cumulative.** Lender's rights and remedies under the Loan Documents and all other agreements with Borrower shall be cumulative. Lender shall have all other rights and remedies as provided under the UCC, by law, or in equity. No exercise by Lender of one right or remedy shall be deemed an election, and no waiver by Lender of any Event of Default shall be deemed a continuing waiver. No delay by Lender shall constitute a waiver, election, or acquiescence.

**9.5 Application of Collateral Proceeds.** Lender will apply proceeds of sale, to the extent actually received in cash, in the manner and order it determines in its sole discretion, and as prescribed by applicable law.

## 10. WAIVERS; INDEMNIFICATION

**10.1 Waivers.** Without limiting the generality of the other waivers made by Borrower herein, to the maximum extent permitted under applicable law, Borrower hereby irrevocably waives all of the following: (i) any right to assert *against Lender* as a defense, counterclaim, set-off or crossclaim, any defense (legal or equitable), set-off, counterclaim, crossclaim and/or other claim (a) which Borrower may now or at any time hereafter have against any party liable to Lender in any way or manner, or (b) arising directly or indirectly from the present or future lack of perfection, sufficiency, validity and/or enforceability of any Loan Document, or any security interest; (ii) presentment, demand and notice of presentment, dishonor, notice of intent to accelerate, protest, default, nonpayment, maturity, release, compromise, settlement, extension or renewal of any or all accounts, documents, instruments, chattel paper and guaranties at any time held by Lender on which Borrower may in any way be liable and hereby ratifies and confirms whatever Lender may do in this regard; (iii) the benefit of all marshalling, valuation, appraisal and exemption laws; (iv) the right, if any, to require Lender to (a) proceed against any person liable for any of the Obligations as a condition to or before proceeding hereunder; or (b) foreclose upon, sell or otherwise realize upon or collect or apply any other property, real or personal, securing any of the Obligations, as a condition to, or before proceeding hereunder; (v) any demand for possession before the commencement of any suit or action to recover possession of Collateral; and (vi) any requirement that Lender retain possession and not dispose of Collateral until after trial or final judgment.

**10.2 Lender's Liability for Collateral.** Lender shall not in any way or manner be liable or responsible for; (i) the safekeeping of any Collateral; (ii) any loss or damage thereto occurring or arising in any manner or fashion from any cause; (iii) any diminution in the value thereof; or (iv) any act or default of any carrier, warehouseman, bailee, forwarding agency, or other person or entity whomsoever unless arising out of Lender's gross negligence or willful misconduct. All risk of loss, damage or destruction of the Collateral shall be borne by Borrower. Lender will have no responsibility for taking any steps to preserve rights against any parties respecting any Collateral, except for Lender's gross negligence or willful misconduct. Lender's powers hereunder are conferred solely to protect its interest in the Collateral and do not impose any duty to exercise any such powers. None of Lender or any of its officers, directors, employees, agents or counsel will be liable for any action lawfully taken or omitted to be taken hereunder or in connection herewith (excepting gross negligence or willful misconduct), nor under any circumstances have any liability to Borrower for lost profits or other special, indirect, punitive, or consequential damages. Lender retains any documents delivered by Borrower only for its purposes and for such period as Lender, at its sole discretion, may determine necessary, after which time Lender may destroy such records without notice to or consent from Borrower.

**10.3 Indemnification.** Borrower shall defend, indemnify, and hold Lender and each of its officers, directors, employees, counsel, partners, agents and attorneys-in-fact (each, an "*Indemnified Person*") harmless from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, charges, expenses or disbursements (including Lender's Expenses and reasonable attorney's fees) of any kind or nature whatsoever with respect to the execution, delivery, enforcement, performance and administration of this Agreement and any other Loan Documents, or the transactions contemplated hereby and thereby, with respect to noncompliance with laws or regulations respecting Regulated Substances, government secrecy or technology export, or any Lien not created by Lender or right of another against any Collateral, even if the Collateral is foreclosed upon or sold pursuant hereto, and with respect to any investigation, litigation or proceeding before any agency, court or other governmental authority relating to this Agreement or the Advances or the use of the proceeds thereof, whether or not any Indemnified Person is a party thereto (all the foregoing, collectively, the "*Indemnified Liabilities*"); *provided*, that Borrower shall have no obligation hereunder to any Indemnified Person with respect to Indemnified Liabilities arising from the gross negligence or willful misconduct of such Indemnified Person. The obligations in this Section shall survive the Term. At the election of any Indemnified Person, Borrower shall defend such

Indemnified Person using legal counsel satisfactory to such Indemnified Person, at the sole cost and expense of Borrower. All amounts owing under this Section shall be paid within 30 days after written demand.

## 11. NOTICES

All notices shall be in writing and personally delivered or sent by certified mail, postage prepaid, return receipt requested, or by confirmed facsimile, at the respective addresses set forth below:

If to Borrower;

Cerulean Pharma Inc.  
Attention: Senior Vice President, Finance and Administration  
Attention: General Counsel  
840 Memorial Drive, 5th Floor  
Cambridge, Massachusetts 02139  
FAX: (617) 494-1544

If to Lender:

Lighthouse Capital Partners VI, LP  
Attention: Contracts Administration  
3555 Alameda de las Pulgas, Suite 200  
Menlo Park, California 94025  
FAX: (650) 233-0114

## 12. GENERAL PROVISIONS

**12.1 Successors and Assigns.** This Agreement shall bind and inure to the benefit of the parties' respective successors and permitted assigns. Borrower may not assign any rights hereunder without Lender's prior written consent, which consent may be granted or withheld in Lender's sole discretion. Lender shall have the right without the consent of or notice to Borrower to sell, transfer, negotiate, or grant participations in all or any part of any Loan Document, except to any entity reasonably deemed to be a competitor of Borrower or to a lender organized or resident outside of the United States.

**12.2 Time of Essence.** Time is of the essence for the performance of all Obligations.

**12.3 Severability of Provisions.** Each provision hereof shall be severable from every other provision in determining its legal enforceability.

**12.4 Entire Agreement.** This Agreement and each of the other Loan Documents dated as of the date hereof, taken together, constitute and contain the entire agreement between Borrower and Lender with respect to their subject matter and supersede any and all prior agreements, negotiations, correspondence, understandings and communications between the parties, whether written or oral. This Agreement is the result of negotiations between and has been reviewed by the Borrower and Lender as of the date hereof and their respective counsel; *accordingly*, this Agreement shall be deemed to be the product of the parties hereto, and no ambiguity shall be construed in favor of or against Borrower or Lender. This Agreement may only be modified with the written consent of Lender and Borrower. Any waiver or consent with respect to any provision of the Loan Documents shall be effective only in the specific instance and for the specific purpose for which it was given. No notice to or demand on Borrower in any one case shall entitle Borrower to any other or further notice or demand in similar or other circumstances.

**12.5 Reliance by Lender.** All covenants, agreements, representations and warranties made herein by Borrower shall, notwithstanding any investigation by Lender, be deemed to be material to the Lender and to have been relied upon by Lender in making its decision to enter into and perform under the Loan Documents.

**12.6 No Set-Offs by Borrower.** All sums payable by Borrower pursuant to this Agreement or any of the other Loan Documents shall be payable without notice or demand and shall be payable in United States Dollars without set-off or reduction of any manner whatsoever.

**12.7 Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which, when taken together, shall constitute one and the same original instrument.

**12.8 Survival.** All covenants, representations and warranties made in this Agreement shall continue in full force and effect so long as any Obligations remain outstanding.

**12.9 No Original Issue Discount.** Borrower and Lender acknowledge and agree that the Warrant is part of an investment unit within the meaning of Section 1273(c)(2) of the Internal Revenue Code, which includes the Loan, Borrower and Lender further agree as between them, that they will cooperate with each other in determining the fair market value of the Warrant and that, pursuant to Treas. Reg. § 1.1273-2(h), a portion of the issue price of the investment unit will be allocable to the Warrant and the balance shall be allocable to the Loans. Borrower and Lender agree to prepare their federal income tax returns in a manner consistent with the foregoing and to cooperate with each other in determining such valuation and allocation approach and methodology, pursuant to Treas. Reg. § 1.1273, the original issue discount on the Loan shall be considered to be zero.

**12.10 Relationship of Parties.** The relationship between Borrower and Lender is, and at all times shall remain, solely that of a borrower and lender, Lender is not a partner or joint venturer of Borrower; nor shall Lender under any circumstances be deemed to be in a relationship of confidence or trust or have a fiduciary relationship with Borrower or any of its affiliates, or to owe any fiduciary duty to Borrower or any of its affiliates. Lender does not undertake or assume any responsibility or duty to Borrower or any of its affiliates to select, review, inspect, supervise, pass judgment upon or otherwise inform any of them of any matter in connection with its or their property, the Loans, any Collateral or the operations of Borrower or any of its affiliates. Borrower and each of its affiliates shall rely entirely on their own judgment with respect to such matters, and any review, inspection, supervision, exercise of judgment or supply of information undertaken or assumed by Lender in connection with such matters is solely for the protection of Lender and neither Borrower nor any affiliate is entitled to rely thereon.

**12.11 Choice of Law and Venue; Jury Trial Waiver.** THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. EACH OF BORROWER AND LENDER HEREBY SUBMITS TO THE EXCLUSIVE JURISDICTION AND VENUE OF THE STATE AND FEDERAL COURTS LOCATED IN THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA. BORROWER AND LENDER HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF ANY OF THE LOAN DOCUMENTS OR ANY OF THE TRANSACTIONS CONTEMPLATED THEREIN, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.

**12.12 Confidentiality.** In handling any confidential or non-public information concerning the Borrower, Lender will maintain the confidentiality of such information, but disclosure of information may be made (i) to Lender's subsidiaries, partners or affiliates in connection with their business with Borrower, provided they are bound by these confidentiality provisions, (ii) to prospective transferees or purchasers of any security interest in the loans, provided they are bound by these confidentiality provisions, (iii) as required by law, regulation, subpoena, or other order; (iv) as required in connection with Lender's examination or audit, provided that any person receiving confidential or non-public information is bound by these confidentiality provisions or similar regulations, and (v) as Lender considers appropriate in exercising remedies under this Agreement, provided that any person receiving confidential or non-public information is bound by these confidentiality provision or similar regulations. Confidential information does not include information that either: (x) is in the public domain or in Lender's possession when disclosed to Lender, or becomes part of the public domain after disclosure to Lender, or (y) is disclosed to Lender by a third party, if Lender does not have actual knowledge that the third party is prohibited from disclosing the information.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

**CERULEAN PHARMA INC.**

**LIGHTHOUSE CAPITAL PARTNERS VI, LP.**

**BY: LIGHTHOUSE MANAGEMENT PARTNERS VI, L.L.C.,**  
its general partner

By: /s/ Karen L. Roberts

By: /s/ Ryan Turner

Name: Karen L. Roberts

Name: Ryan Turner

Title: SVP Finance + Admin

Title: Managing Director

- Exhibit A Collateral Description
- Exhibit B Form of Note
- Exhibit C Form of Preferred Stock Warrant
- Exhibit D Form of Notice of Borrowing
- Exhibit E Form of Incumbency Certificate
- Exhibit F Form of Officers Certificate
- Exhibit G ACH Authorization
- Exhibit H Form of Negative Pledge Agreement
- Exhibit I Control Agreement
  
- Schedule 1 Disclosure Schedule

EXHIBIT B

[ ]

SECURED PROMISSORY NOTE

This SECURED PROMISSORY NOTE (this “*Note*”) is made , 20 , by CERULEAN PHARMA INC. (“*Borrower*”) in favor of LIGHTHOUSE CAPITAL PARTNERS VI, L.P. (collectively with its assigns, “*Lender*”). Initially capitalized terms used and not otherwise defined herein are defined in that certain Loan and Security Agreement No. 2161 between Borrower and Lender dated December 6, 2011 (the “*Loan Agreement*”).

FOR VALUE RECEIVED, Borrower promises to pay in lawful money of the United States, to the order of Lender, at 3555 Alameda de las Pulgas, Suite 200, Menlo Park, CA 94025, or such other place as Lender may from time to time designate (“*Lender’s Office*”), the principal sum of \$ (the “*Advance*”), including interest on the unpaid balance and all other amounts due or to become due hereunder according to the terms hereof and of the Loan Agreement.

“*Basic Rate*” means (i) a fixed *per annum* rate of interest equal to 9% during the Interest Only Period; and (ii) a variable *per annum* rate of interest equal to the Index plus the Interest Margin which shall be subject to adjustment as provided in the Loan Agreement. On and after the Loan Commencement Date the Basic Rate shall be fixed and not subject to any further adjustments. Notwithstanding the foregoing, in no event shall the Basic Rate be less than 8.25%,

“*Final Payment*” means 6% of the Advance, or prorated portion thereof in case of a partial prepayment.

“*Index*” means the prevailing variable Prime Rate of annual interest as quoted from time to time in the western edition of the Wall Street Journal.

“*Interest Margin*” means 5% per annum.

“*Interest Only Period*” means the period commencing on the date hereof and continuing until the Loan Commencement Date.

“*Loan Commencement Date*” means .

“*Maturity Date*” means the last day of the Repayment Period, or if earlier, the date of prepayment under the Note.

“*Payment Date*” means the first day of each calendar month.

“*Repayment Period*” means the period beginning on the Loan Commencement Date and continuing for 36 calendar months.

**1. Repayment.** Borrower shall pay principal and interest due hereunder from the Funding Date, until this Note is paid in full, on each Payment Date pursuant to the terms of the Loan Agreement and this Note. Prior to the Loan Commencement Date, Borrower shall pay to Lender, monthly in advance on each Payment Date, interest on the outstanding principal amount, calculated using the Basic Rate prevailing on the first business day of such calendar month. Beginning on the Loan Commencement Date and on each Payment Date thereafter during the Repayment Period (unless the outstanding principal amount and the accrued interest thereon, calculated at the Basic Rate, is paid earlier), Borrower shall make equal installments of principal and interest in advance, calculated at the Basic Rate. On the Maturity Date, Borrower shall pay, in addition to all unpaid principal and interest outstanding hereunder, the applicable Final Payment.

**2. Interest.** Interest not paid when due will, to the maximum extent permitted under applicable law, become part of principal, at Lender’s option, and thereafter bear like interest as principal. All interest computation shall be based on a 360-day year and actual days elapsed prior to the Loan Commencement Date and on a 360-day year and 30 day month on and after the Loan Commencement Date. All Obligations not paid when due shall bear interest at the Default Rate unless waived in writing by Lender. All amounts paid hereunder will be applied to the Obligations in Lender’s discretion and as provided in the Loan Agreement.

**3. Voluntary Prepayment.** Borrower may prepay all or any portion of the Note if and only if Borrower pays to Lender (i) all or a portion of the outstanding principal amount of this Note and any unpaid accrued interest thereon, (ii) the Final Payment, or prorata portion thereof in case of a partial prepayment, and (iii) all other sums, if any, that shall have become due and payable hereunder with respect to this Note.

**4. Collateral.** This Note is secured by the Collateral.

**5. Waivers.** Borrower, and all guarantors and endorsers of this Note, regardless of the time, order or place of signing, hereby waive notice, demand, presentment, protest, and notices of every kind, presentment for the purpose of accelerating maturity, diligence in collection, and, to the fullest extent permitted by law, all rights to plead any statute of limitations as a defense to any action on this Note.

**6. Choice of Law; Venue.** THIS NOTE SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. EACH OF BORROWER AND LENDER HEREBY SUBMITS TO THE EXCLUSIVE JURISDICTION AND VENUE OF THE STATE AND FEDERAL COURTS LOCATED IN THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA. BORROWER AND LENDER EACH HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS NOTE. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.

**7. Miscellaneous.** This Note may be modified only by a writing signed by Borrower and Lender. Each provision hereof is severable from every other provision hereof and of the Loan Agreement when determining its legal enforceability. Sections and subsections are titled for convenience, and not for construction. "Hereof," "herein," "hereunder," and similar words refer to this Note in its entirety. "Or" is not necessarily exclusive. "Including" is not limiting. The terms and conditions hereof inure to the benefit of and are binding upon the parties' respective permitted successors and assigns. This Note is subject to all the terms and conditions of the Loan Agreement.

IN WITNESS WHEREOF, Borrower has caused this Note to be executed by a duly authorized officer as of the day and year first above written.

**CERULEAN PHARMA INC.**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT D**

**NOTICE OF BORROWING**

Lighthouse Capital Partners VI, L.P.  
3555 Alameda de las Pulgas, Suite 200  
Menlo Park, CA 94025

Ladies and Gentlemen:

Reference is made to the Loan and Security Agreement No, 2161 dated as of December 6, 2011 (as it has been and may be amended from time to time, the "*Loan Agreement*" initially capitalized terms used herein as defined therein), between **Lighthouse CAPITAL PARTNERS VI, L.P.** and **CERULEAN PHARMA INC.** (the "*Company*")

The undersigned is the [President and CEO][Senior Vice President, Finance and Administration] of the Company, and hereby irrevocably requests an Advance under the Loan Agreement, and in that connection certifies on behalf of the Company as follows:

1. The amount of the proposed Advance is \$ . The business day of the proposed Advance is .
2. The Loan Commencement Date for this Advance shall be .

3. As of this date, no Default or Event of Default has occurred and is continuing, or will result from the making of the proposed Advance, and the representations and warranties of the Company contained in Section 5 of the Loan Agreement are true and correct in all material respects, and except for any representations and warranties that speak as of a specific date and except for any amended Disclosure Schedule delivered to Lender or any other written disclosure sent to Lender pursuant to the terms of the Loan Agreement.

4. As of this date, (i) Oliver Fetzer or another person designated by a majority of the Board of Directors serves as President and Chief Executive Officer of Borrower; (ii) at least 2 of the following 3 firms have a representative on Borrower's Board of Directors: Polaris Venture Partners, Venrock Associates, and Lilly Ventures; or (iii) Borrower continues to be in the business of developing innovative nanopharmaceuticals.

The Company agrees to notify you promptly before the funding of the Advance if any of the matters to which I have certified above shall not be true and correct on the Funding Date.

Very truly yours,

**Cerulean Pharma Inc.**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT F**

**OFFICER'S CERTIFICATE**

The undersigned, to induce **LIGHTHOUSE CAPITAL PARTNERS VI, L.P.** ("*Lender*"), to extend or continue financial accommodations to **CERULEAN PHARMA INC.**, a Delaware corporation (the "*Borrower*") pursuant to the terms of that certain Loan and Security Agreement dated December 6, 2011 (the "*Loan Agreement*"), hereby certifies that on the date hereof:

1. I am the duly elected and acting \_\_\_\_\_ of Borrower.
2. I am a Responsible Officer as that term is defined in the Loan Agreement.
3. The information submitted herewith is in fact what it purports to be.
4. The information delivered herewith fairly presents the financial condition of the Borrower as of the respective dates reported in such information.
5. Borrower is currently able to pay its debts as they come due.
6. I understand that Lender is relying upon the truthfulness, accuracy and completeness hereof in connection with the Loan Agreement.
7. I will advise you if it comes to my attention that, as of the date hereof, the information submitted herewith did not fairly present the financial condition of the Borrower.

IN WITNESS WHEREOF, the undersigned has executed this Officer's Certificate on \_\_\_\_\_ .

**Cerulean Pharma Inc.**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_



**AMENDMENT NO. 01**

Dated August 15, 2013

TO  
that certain Loan and Security Agreement No. 2161  
dated as of December 6, 2011, as amended, ("*Agreement*"), by and between  
**LIGHTHOUSE CAPITAL PARTNERS VI, L.P.** ("*Lender*") and  
**CERULEAN PHARMA INC.** ("*Borrower*").

WHEREAS, Borrower and Lender have previously entered into the Agreement;

WHEREAS, Borrower has recently formed Cerulean Pharma Australia Pty Ltd, a corporation registered under the Corporations Act 2001 of Victoria Australia ("*Cerulean Australia*") as a wholly-owned foreign Subsidiary of Borrower; and

WHEREAS, Lender and Borrower agree to modify the Agreement to among other things, formalize the pledge of the requisite portion of Borrower's interest in Cerulean Australia pursuant to Section 6.9 of the Agreement.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained, the parties hereby agree to modify the Agreement and to perform such other covenants and conditions as follows:

(All capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Agreement.)

Without limiting or amending any other provisions of the Agreement, Lender and Borrower agree to the following:

**I. Section 1.1** of the Agreement, the following definitions shall be deleted in their entirety and replaced with the following:

"*Loan Documents*" means, collectively, the Agreement, this Amendment 01, the Warrant, the Notes, the Share Pledge, and all other documents, instruments and agreements entered into between Borrower and Lender in connection with the Loan, all as amended or extended from time to time.

"*Permitted Indebtedness*" means: (i) the Loan; (ii) unsecured trade debt incurred in the ordinary course of Borrower's business; (iii) Indebtedness secured by clauses (ii), (v) and (x) of Permitted Liens; (iv) Subordinated Debt; and (v) subject to the requirements of Section 7.10(ii), Indebtedness of a Subsidiary of the Borrower to the Borrower.

"*Permitted Liens*" means: (i) Liens in favor of Lender; (ii) Liens disclosed in the Disclosure Schedule, including Liens of Silicon Valley Bank ("*SVB*") on specific assets of Borrower financed pursuant to the terms of an equipment loan facility with SVB and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing; (iii) Liens for taxes, fees, assessments or other governmental charges or levies not delinquent or being contested in good faith by appropriate proceedings, that do not jeopardize Lender's interest in any Collateral; (iv) Liens to secure payment of worker's compensation, employment insurance, old age pensions or other social security obligations of Borrower on which Borrower is current and arc in the ordinary course of its business; provided none of the same diminish or impair Lender's rights and remedies respecting the Collateral; (v) Liens upon or in any equipment (and including any accessions, attachments, replacements, improvements or proceeds thereto) acquired or held by such entity to secure the purchase price of such equipment or Indebtedness incurred solely for the purposes of financing such equipment or Capital Lease obligations in an aggregate amount at any time outstanding not to exceed \$1,000,000; (vi) licenses or sublicenses of intellectual property granted in the ordinary course of business; (vii) banker's Liens, rights of setoff and similar Liens incurred on deposit and securities accounts of such entities for fees due on such accounts made in the ordinary course of business; (viii) carriers', warehousemen's, mechanics', materialmen's, repairmen's or other like Liens arising in the ordinary course of business which are not delinquent or remain payable without

penalty or which are being contested in good faith and by appropriate proceedings; (ix) Liens in favor of customs and revenue authorities which secure payment of customs duties in connection with the importation of goods; (x) Liens on Borrower's account no. 3300994390 with SVB securing reimbursement obligations in connection with letter of credit no. SVBSF008253 in favor of Rivertech Associates II, LLC in the face amount not to exceed \$117,134.00; and (xi) judgment Liens not constituting an Event of Default.

**II. Section 1.1** of the Agreement, the following definitions shall be added:

“*Amendment 01*” means this Amendment No. 01 to Loan and Security Agreement by and between Lender and Borrower dated August 15, 2013.

“*Cerulean Australia*” means Cerulean Pharma Australia Pty Ltd, a wholly owned Subsidiary of Borrower organized under the laws of Australia.

“*Share Pledge*” means that certain Stock Pledge Agreement between Lender and Borrower in the form attached as *Exhibit J* by which Borrower shall pledge as Collateral for Lender hereunder 65% of the outstanding stock of Cerulean Australia.

“*Subordinated Debt*” means bridge financing Indebtedness of Borrower in a principal amount not to exceed \$11,800,000 of proximate date of (or within 90 days of) Amendment 01 provided by Borrower's equity investors that is fully subordinated in both security and right of payment to the Obligations pursuant to the Subordination Agreement.

“*Subordination Agreement*” means an agreement between Lender and Borrower's equity investors providing Borrower Subordinated Debt in the form attached hereto as *Exhibit K*.

**III. Section 7.2** of the Agreement shall be deleted and replaced with the following:

**7.2 Extraordinary Transactions.** Enter into any material transaction not in the ordinary course of Borrower's business, including the sale, lease, license or other disposition of its assets, other than (i) sales of inventory in the ordinary course of Borrower's business; (ii) licenses and sublicenses of Borrower's intellectual property assets entered into in the ordinary course of business; (iii) disposition of worn out or obsolete equipment, de minimis amounts of raw materials or de minimis amounts of tangible assets; (iv) dispositions of rights to Intellectual Property to and with Cerulean Australia and related agreements and transactions; and (v) any transaction otherwise permitted under this **Section 7** or not an Event of Default under **Section 8.12** (including without limitation, disposition of rights to Intellectual Property to and with Cerulean Australia).

**IV. Section 7.6** of the Agreement shall be deleted and replaced with the following:

**7.6 Distributions.** Pay any dividends or distributions, or redeem or purchase, any capital stock, except for (i) repurchases of capital stock from departing employees, directors, or service providers under agreements approved by the Borrower's board of directors, and (ii) capital contributions to Cerulean Australia, provided that the requirements of **Section 7.10(ii)** are satisfied.

**V. Section 7.7** of the Agreement shall be deleted and replaced with the following:

**7.7 Transactions with Affiliates.** Directly or indirectly enter into any transaction with any affiliate (other than (i) with Cerulean Australia, or (ii) in connection with Subordinated Debt, which is on terms less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated entity; provided, any such transaction shall not be a breach of this Section 7.7 if approved by a majority of the disinterested members of the Borrower's Board of Directors.

**VI. Section 7.10** of the Agreement shall be deleted and replaced with the following:

**7.10 Deposit and Securities Accounts.** Maintain any deposit accounts or accounts holding securities owned by Borrower except accounts in which Lender has obtained a perfected first priority security interest. Notwithstanding the foregoing, Lender shall not have a perfected security interest in (i) Borrower's deposit number 3300994390 at

SVB in the amount of \$117,134.00 which secures letter of credit number SVBSF008253 issued in favor of Rivertech Associates II, LLC and (ii) Cerulean Australia's account numbers 033-002721996 and 033-002722008, *provided* the amount in such accounts shall not exceed \$1,000,000 in the aggregate at any time. For so long as the Obligations are outstanding, Borrower shall not hold directly or indirectly, purchase or create a purchase order or directive to purchase any auction rate securities or similar financial instruments regardless of whether such securities are to be held by Borrower or through one or more brokerage accounts.

**VII. Section 7.11(i)** of the Agreement shall be deleted and replaced with the following:

(i) sell, dispose of, convey, or allow a Lien to arise on any of the assets, including Intellectual Property (as defined in Exhibit A) owned by such Subsidiary (and for this purpose, the definition of "Intellectual Property" shall be deemed to refer to such Subsidiary) except for non-exclusive licenses entered into in the ordinary course of business, dispositions of rights to Intellectual Property with and to the Borrower, and other Permitted Liens.

**VIII. Conditions Precedent to the effectiveness of Amendment 01:**

The obligation of Lender to enter into this Amendment 01 is subject to the performance and fulfillment of each and every of the following conditions precedent in form and substance satisfactory to Lender in its sole discretion:

(a) This Amendment 01 shall have been duly executed and delivered by Borrower.

(b) Borrower shall have duly executed and delivered the Share Pledge to Lender and a stock certificate representing 65% of Cerulean Australia's outstanding stock, along with an executed stock power;

(c) Borrower shall have delivered the duly executed Subordination Agreement signed by Borrower and the investors providing Subordinated Debt to Borrower.

(d) Without limiting the foregoing or Lender's rights or Borrower's Obligations under the Agreement, such consents, including the approvals of Borrower's board of directors, amendments, filings, recordings, or other documents from any persons or entities necessary to maintain the perfection and priority of Lender's security interest in the Collateral as originally configured, in form and substance reasonably satisfactory to Lender, shall have been delivered by Borrower to Lender.

(e) A good standing certificate from Borrower's state of incorporation or formation and the states in which Borrower maintains a place of business, including certificates of the applicable governmental authorities stating that Borrower is in compliance with the franchise tax laws of each such state, each dated as of a recent date shall have been delivered to Lender.

(f) All necessary consents of shareholders, members, and other third parties with respect to the execution, delivery and performance of the Agreement, this Amendment 01, the Share Pledge (and the underlying share certificate and share transfer form), and the Subordination Agreement shall have been delivered to Lender.

**IX. Additional Terms and Conditions**

(a) Further Conditions. The following are conditions precedent to Lender's obligations to enter into this Amendment 01:

(i) Borrower shall execute and deliver all other documents, as Lender shall have reasonably requested prior to the execution by Borrower and Lender of this Amendment 01.

(ii) Borrower shall and hereby does agree to promptly pay all Lender's Expenses for the preparation and negotiation of this Amendment 01 when requested.

(b) Representations and Warranties of Borrower. Borrower reaffirms that, except as set forth in the attached Disclosure Schedule, the representations and warranties made to Lender in the Agreement are true and

correct as of the date hereof as though fully set forth herein (except to the extent such representations and warranties expressly refer to a specific date, in which case they are true and correct in all material respects as of such date). Borrower further warrants and represents, as a significant material inducement to Lender to enter hereinto, that: (i) no Events of Default have occurred that have not been disclosed to Lender by Borrower in writing and all previously disclosed Events of Default have been cured or waived; (ii) all actions or proceedings pending or, to the knowledge of the Borrower, threatened in writing by or against Borrower before any court or administrative agency are set forth on the Disclosure Schedule.; (iii) it is in full compliance with **Section 7.10** of the Agreement; and (iv) the information provided on the attached Disclosure Schedule is complete and accurate.

(c) **No Control.** Borrower warrants and represents, as a significant material inducement to Lender to enter hereinto, that none of Lender nor any affiliate, officer, director, employee, agent, or attorney of Lender, have at any time, from Borrower's date of formation through to the date hereof, (i) exercised management or other control over the Borrower, (ii) exercised undue influence over Borrower or any of its officers, employees or directors, (iii) entered into any joint venture, agency relationship, employment relationship, or partnership with Borrower, (iv) directed or instructed Borrower on the manner, method, amount, or identity of payee of any payment made to any creditor of Borrower, and further, Borrower warrants and represents that by entering hereinto with Lender has not, is not and will not have engaged in any of the foregoing.

(d) **Cerulean Australia.** Lender waives any requirement for prior written notice of the formation of Cerulean Australia pursuant to **Section 6.9** of the Agreement, and consents to the formation of Cerulean Australia pursuant to **Section 7.3** of the Agreement.

**X. Integration Clause.** This Amendment 01 and the Agreement represent and document the entirety of the agreement and understanding of the parties hereto with respect to the subject matter thereof. All prior understandings, whether oral or written, other than the Loan Documents, are hereby merged hereinto. **NONE OF THE AGREEMENT OR THIS AMENDMENT 01 MAY BE MODIFIED EXCEPT BY A WRITING SIGNED BY LENDER AND BORROWER.** Each provision hereof shall be severable from every other provision when determining its legal enforceability such that Lender's rights and remedies under this Amendment 01 and the Agreement may be enforced to the maximum extent permitted under applicable law. This Amendment 01 shall be binding upon, and inure to the benefit of, each party's respective permitted successors and assigns. This Amendment 01 may be executed in counterpart originals, all of which, when taken together, shall constitute one and the same original document. No provision of any other document between Lender and Borrower shall limit the effectiveness hereof or the rights and remedies of Lender against Borrower. Except as expressly provided herein, in the event of any contradiction or inconsistency among the terms and conditions of this Amendment 01 and the Agreement, the terms of the Agreement shall prevail.

Except as amended hereby, the Agreement remains unmodified and unchanged.

BORROWER:

CERULEAN PHARMA, INC.

By: /s/ Jean M. Silveri

Name: Jean M. Silveri

Title: General Counsel

LENDER:

LIGHTHOUSE CAPITAL PARTNES VI, L.P.

By: LIGHTHOUSE MANAGEMENT  
PARTNERS VI, L.L.C., its general partner

By: /s/ Cristy Barnes

Name: Cristy Barnes

Title: Managing Director

Exhibit J Share Pledge

Exhibit K Subordination Agreement

Schedule I

**AMENDMENT NO. 02**

Dated February 14, 2014

TO  
that certain Loan and Security Agreement No. 2161  
dated as of December 6, 2011, as amended, ("*Agreement*"), by and between  
**LIGHTHOUSE CAPITAL PARTNERS VI, L.P.** ("*Lender*") and  
**CERULEAN PHARMA INC.** ("*Borrower*").

WHEREAS, Borrower and Lender have previously entered into the Agreement;

WHEREAS, Borrower has informed Lender that it intends to enter into a bridge financing;

WHEREAS, Borrower has requested that Lender consent to such financing and modify certain terms of the Agreement to accommodate the financing;  
and

WHEREAS, Lender has agreed to do so, upon the terms set forth herein and subject to all of the terms and conditions hereof and of the Agreement.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained, the parties hereby agree to modify the Agreement and to perform such other covenants and conditions as follows:

(All capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Agreement.)

Without limiting or amending any other provisions of the Agreement, Lender and Borrower agree to the following:

**I. Section 1.1** of the Agreement, the following definitions shall be deleted in their entirety and replaced with the following:

"*Loan Documents*" means, collectively, the Agreement, Amendment 01, this Amendment 02, the Warrant, the Notes, the Share Pledge, and all other documents, instruments and agreements entered into between Borrower and Lender in connection with the Loan, all as amended or extended from time to time.

**II. Section 1.1** of the Agreement, the following definitions shall be added:

"*Amendment 02*" means this Amendment No. 02 to Loan and Security Agreement by and between Lender and Borrower dated February 14, 2014.

"*Permitted Liens*" means: **(i)** Liens in favor of Lender; **(ii)** Liens disclosed in the Disclosure Schedule; **(iii)** Liens for taxes, fees, assessments or other governmental charges or levies not delinquent or being contested in good faith by appropriate proceedings, that do not jeopardize Lender's interest in any Collateral; **(iv)** Liens to secure payment of worker's compensation, employment insurance, old age pensions or other social security obligations of Borrower on which Borrower is current and are in the ordinary course of its business; provided none of the same diminish or impair Lender's rights and remedies respecting the Collateral; **(v)** Liens upon or in any equipment (and including any accessions, attachments, replacements, improvements or proceeds thereto) acquired or held by such entity to secure the purchase price of such equipment or Indebtedness incurred solely for the purposes of financing such equipment or Capital Lease obligations in an aggregate amount at any time outstanding not to exceed \$1,000,000; **(vi)** licenses or sublicenses of intellectual property granted in the ordinary course of business; **(vii)** banker's Liens, rights of setoff and similar Liens incurred on deposit and securities accounts of such entities for fees due on such accounts made in the ordinary course of business; **(viii)** carriers', warehousemen's, mechanics', materialmen's, repairmen's or other like Liens arising in the ordinary course of business which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings; **(ix)** Liens in favor of customs and revenue authorities which secure payment of customs duties in connection with the importation of goods; **(x)**

Liens on Borrower's account no. 3300994390 with SVB securing reimbursement obligations in connection with letter of credit no. SVBSF008253 in favor of Rivertech Associates II, LLC in the face amount not to exceed \$117,134.00; and (xi) judgment Liens not constituting an Event of Default.

"*Subordinated Debt*" means (i) bridge financing Indebtedness of Borrower in a principal amount not to exceed \$11,800,000 dated August 15, 2013 (or within 90 days of the date of Amendment 01) (the "*August Bridge*") provided by Borrower's investors that is fully subordinated in both security and right of payment to the Obligations pursuant to the Subordination Agreement; (ii) bridge financing Indebtedness of Borrower in a principal amount not to exceed \$12,000,000 of proximate date of (or within 90 days of the date of) Amendment 02 (the "*February Bridge*") provided by Borrower's investors that is fully subordinated in both security and right of payment to the Obligations pursuant to the Subordination Agreement; and (iii) bridge financing Indebtedness of Borrower in the principal amount not to exceed \$105,529 of proximate date of (or within 90 days of the date of) Amendment 02 (the "*MIT Bridge*") provided by the Massachusetts Institute of Technology or an affiliate thereof or a transferee of its shares or purchase rights ("*MIT*") that is fully subordinated in both security and right of payment to the Obligations pursuant to the Subordination Agreement.

"*Subordination Agreement*" means (i) an agreement between Lender and Borrower's investors providing Borrower the August Bridge in the form attached hereto as *Exhibit K*; (ii) an agreement between Lender and Borrower's investors providing Borrower the February Bridge in the form attached hereto as *Exhibit K-1*; and (iii) an agreement between Lender and MIT with respect to the MIT Bridge in substantially the form attached hereto as *Exhibit K-1*.

### III. Conditions Precedent to the effectiveness of Amendment 02:

The obligation of Lender to enter into this Amendment 02 is subject to the performance and fulfillment of each and every of the following conditions precedent in form and substance satisfactory to Lender in its sole discretion:

(a) This Amendment 02 shall have been duly executed and delivered by Borrower.

(b) Borrower shall have delivered the duly executed Subordination Agreement signed by Borrower and those certain investors participating in the initial closing of the February Bridge of even date herewith.

(c) Without limiting the foregoing or Lender's rights or Borrower's Obligations under the Agreement, such consents, including the approvals of Borrower's board of directors, amendments, filings, recordings, or other documents from any persons or entities necessary to maintain the perfection and priority of Lender's security interest in the Collateral as originally configured, in form and substance reasonably satisfactory to Lender, shall have been delivered by Borrower to Lender.

(d) All necessary consents of shareholders, members, and other third parties with respect to the execution, delivery and performance of the Agreement, this Amendment 02, and the Subordination Agreement shall have been delivered to Lender.

### IV. Additional Terms and Conditions

(a) Further Conditions. The following are conditions precedent to Lender's obligations to enter into this Amendment 02:

(i) Borrower shall execute and deliver all other documents, as Lender shall have reasonably requested prior to the execution by Borrower and Lender of this Amendment 02.

(ii) Borrower shall and hereby does agree to promptly pay all Lender's Expenses for the preparation and negotiation of this Amendment 02 when requested.

(b) Representations and Warranties of Borrower. Borrower reaffirms that, except as set forth in the attached Disclosure Schedule, the representations and warranties made to Lender in the Agreement are true and correct as of the date hereof as though fully set forth herein (except to the extent such representations and warranties expressly refer to a specific date, in which case they are true and correct in all material respects as of such date).

Borrower further warrants and represents, as a significant material inducement to Lender to enter hereinto, that: **(i)** no Events of Default have occurred that have not been disclosed to Lender by Borrower in writing and all previously disclosed Events of Default have been cured or waived; **(ii)** all actions or proceedings pending or, to the knowledge of the Borrower, threatened in writing by or against Borrower before any court or administrative agency are set forth on the Disclosure Schedule.; **(iii)** it is in full compliance with **Section 7.10** of the Agreement; and **(iv)** the information provided on the attached Disclosure Schedule is complete and accurate.

**(c) No Control.** Borrower warrants and represents, as a significant material inducement to Lender to enter hereinto, that none of Lender nor any affiliate, officer, director, employee, agent, or attorney of Lender, have at any time, from Borrower's date of formation through to the date hereof, **(i)** exercised management or other control over the Borrower, **(ii)** exercised undue influence over Borrower or any of its officers, employees or directors, **(iii)** entered into any joint venture, agency relationship, employment relationship, or partnership with Borrower, **(iv)** directed or instructed Borrower on the manner, method, amount, or identity of payee of any payment made to any creditor of Borrower, and further, Borrower warrants and represents that by entering hereinto with Lender has not, is not and will not have engaged in any of the foregoing.

**(d) Joinder.** As a condition of such investors' participation, Borrower will deliver to Lender the duly executed Joinder to the Subordination Agreement signed by Borrower and those certain investors participating in the February Bridge after the date hereof.

**V. Integration Clause.** This Amendment 02 and the Agreement represent and document the entirety of the agreement and understanding of the parties hereto with respect to the subject matter thereof. All prior understandings, whether oral or written, other than the Loan Documents, are hereby merged hereinto. **NONE OF THE AGREEMENT OR THIS AMENDMENT 02 MAY BE MODIFIED EXCEPT BY A WRITING SIGNED BY LENDER AND BORROWER.** Each provision hereof shall be severable from every other provision when determining its legal enforceability such that Lender's rights and remedies under this Amendment 02 and the Agreement may be enforced to the maximum extent permitted under applicable law. This Amendment 02 shall be binding upon, and inure to the benefit of, each party's respective permitted successors and assigns. This Amendment 02 may be executed in counterpart originals, all of which, when taken together, shall constitute one and the same original document. No provision of any other document between Lender and Borrower shall limit the effectiveness hereof or the rights and remedies of Lender against Borrower. Except as expressly provided herein, in the event of any contradiction or inconsistency among the terms and conditions of this Amendment 02 and the Agreement, the terms of the Agreement shall prevail.

[REMAINDER OF PAGE INTENTIONALLY BLANK]



Except as amended hereby, the Agreement remains unmodified and unchanged.

**BORROWER:**

**CERULEAN PHARMA INC.**

By: /s/ Oliver S. Fetzer

Name: Oliver S. Fetzer

Title: President and Chief Executive Officer

**LENDER:**

**LIGHTHOUSE CAPITAL PARTNERS VI, L.P.**

By: **LIGHTHOUSE MANAGEMENT  
PARTNERS VI, L.L.C.**, its general partner

By: /s/ Cristy Barnes

Name: Cristy Barnes

Title: Managing Director

**Exhibit K-1** Subordination Agreement

Schedule I

## INDEMNIFICATION AGREEMENT

**THIS INDEMNIFICATION AGREEMENT** (“Agreement”) is made as of \_\_\_\_\_ by and between **CERULEAN PHARMA INC.** a Delaware corporation (the “Company”), and \_\_\_\_\_ (the “Indemnitee”).

**WHEREAS**, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve as [directors on the Company’s Board of Directors (“Board”)] [officers of the Company] and to indemnify its [directors] [officers] so as to provide them with the maximum protection permitted by law.

**NOW, THEREFORE**, in consideration of Indemnitee’s service as [a director] [an officer] of the Company and other good and valuable consideration, Company and Indemnitee hereby agree as follows:

**1. Indemnification.** The Company shall indemnify, defend, and hold harmless Indemnitee from and against, and shall compensate and reimburse Indemnitee for, any Damages (as defined below) that are directly or indirectly suffered or incurred by Indemnitee as a result of, or are directly or indirectly connected with, any threatened, pending or completed action or proceeding, whether civil, criminal, administrative or investigative, to which Indemnitee is or was a party, or is threatened to be made a party, by reason of, or arising directly or indirectly from, the fact that Indemnitee is or was [a member of the Company’s Board] [an officer of the Company], or any subsidiary of the Company, by reason of any action or inaction on the part of Indemnitee in his role as [a member of the Company’s Board] [an officer] or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee or agent of the Company or of another corporation, partnership, joint venture, trust or other enterprise, *provided however*, that the Company shall not be obligated to indemnify Indemnitee under this Section 1: (1) if the Company can demonstrate that Indemnitee acted in bad faith and in a manner Indemnitee could not reasonably have believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, that Indemnitee had no reasonable cause to believe Indemnitee’s conduct was lawful; or (2) in an action by or in the right of the Company, for any claim, issue or matter as to which Indemnitee shall have been adjudged to be liable to the Company in the performance of any duty to the Company and its shareholders unless and only to the extent that the court in which such action or proceeding is or was pending shall determine upon application that, in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for expenses and then only to the extent that the court shall determine. The termination of any action or proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that (i) Indemnitee did not act in good faith, (ii) Indemnitee did not act in a manner which Indemnitee reasonably believed to be in the best interests of the Company, or (iii) with respect to any criminal action or proceeding, Indemnitee had reasonable cause to believe that Indemnitee’s conduct was unlawful. “Damages” shall include any loss, damage, injury, liability, claim, demand, settlement, judgement, award, fine, penalty, tax, fee (including any legal fee, expert fee, accounting fee or advisory fee), charge, cost (including any cost of investigation) or expense of any nature.

### **2. Expenses; Indemnification Procedure.**

**(a) Advancement of Expenses.** The Company shall advance all expenses incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of any civil or criminal action or proceeding referenced in Section 1 hereof (but not amounts actually paid in settlement of any such action or proceeding). Indemnitee hereby undertakes to repay such amounts advanced only if, and to the extent that, it shall ultimately be determined such expenses were not reasonable or that Indemnitee is not entitled to be indemnified by the Company as authorized hereby. The advances to be made hereunder shall be paid by the Company to Indemnitee within twenty (20) days following delivery of a written request therefor by Indemnitee to the Company.

**(b) Notice/Cooperation by Indemnitee.** Indemnitee shall, as a condition precedent to his right to be indemnified under this Agreement, give the Company notice in writing as soon as practicable of any claim made against Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company shall be directed to the President of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee). In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

**(c) Procedure.** Any indemnification provided for in Section 1 shall be made no later than forty-five (45) days after receipt of the written request of Indemnitee. If a claim under this Agreement, under any statute, or under any provision of the Company's Certificate of Incorporation or Bylaws providing for indemnification, is not paid in full by the Company within forty-five (45) days after a written request for payment thereof has first been received by the Company, Indemnitee may, but need not, at any time thereafter bring an action against the Company to recover the unpaid amount of the claim and, subject to Section 14 of this Agreement, Indemnitee shall also be entitled to be paid for the expenses (including attorneys' fees) of bringing such action. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in connection with any action or proceeding in advance of its final disposition) that Indemnitee has not met the standards of conduct which make it permissible under applicable law for the Company to indemnify Indemnitee for the amount claimed, but the burden of proving such defense shall be on the Company, and Indemnitee shall be entitled to receive interim payments of expenses pursuant to Subsection 2(a) unless and until such defense may be finally adjudicated by court order or judgment from which no further right of appeal exists. It is the parties' intention that if the Company contests Indemnitee's right to indemnification, the question of Indemnitee's right to indemnification shall be for the court to decide, and neither the failure of the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its shareholders) to have made a determination that indemnification of Indemnitee is proper in the circumstances because Indemnitee has met the applicable standard of conduct required by applicable law, nor an actual determination by the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its shareholders) that Indemnitee has not met such applicable standard of conduct, shall create a presumption that Indemnitee has or has not met the applicable standard of conduct.

**(d) Selection of Counsel.** In the event the Company shall be obligated under Section 2(a) hereof to pay the expenses of any proceeding against Indemnitee, the Company, if appropriate, shall be entitled to assume the defense of such proceeding, with counsel approved by Indemnitee, which approval shall not be unreasonably withheld, upon the delivery to Indemnitee of written notice of its election so to do. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees of counsel subsequently incurred by Indemnitee with respect to the same proceeding, provided that (i) Indemnitee shall have the right to employ his counsel in any such proceeding at Indemnitee's expense; and (ii) if (A) the employment of counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest on any significant issue between the Company and Indemnitee in the conduct of any such defense or (C) the Company shall not, in fact, have employed counsel to assume the defense of such proceeding, then the fees and expenses of Indemnitee's counsel shall be at the expense of the Company.

### 3. Additional Indemnification Rights; Nonexclusivity; Primacy of Indemnification.

**(a) Scope.** Notwithstanding any other provisions of this Agreement, the Company hereby agrees to indemnify the Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws or by statute. In the event of any change, after the date of this Agreement, in any applicable law, statute or rule which expands the right of a Delaware corporation to indemnify [a member of its Board][an officer], such changes shall be, *ipso facto*, within the purview of Indemnitee's rights and Company's obligations, under this Agreement. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify [a member of its Board][an officer], such changes, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement shall have no effect on this Agreement or the parties' rights and obligations hereunder.

**(b) Nonexclusivity.** The indemnification provided by this Agreement shall not be deemed exclusive of any rights to which Indemnitee may be entitled under the Company's Certificate of Incorporation, its Bylaws, any agreement, any vote of shareholders or disinterested directors, Delaware law, or otherwise, both as to action in Indemnitee's official capacity and as to action in another capacity while holding such office. The indemnification provided under this Agreement shall continue as to Indemnitee for any action taken or not taken while serving in an indemnified capacity even though he may have ceased to serve in such capacity at the time of any action or otherwise covered proceeding.

**(c) [Primacy of Indemnification.]** The Company hereby acknowledges that Indemnitee has or may have certain rights to indemnification, advancement of expenses and/or insurance provided by an Appointing Shareholder (as defined below) and/or affiliates of such Appointing Shareholder (collectively, the "Fund Indemnitors"). The Company hereby agrees (i) that it is the indemnitor of first resort (i.e., its obligations to Indemnitee are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by Indemnitee are secondary), (ii) that it shall be required to advance the full amount of expenses incurred by Indemnitee and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the terms of this Agreement and the Certificate of Incorporation or Bylaws of the Company (or any other agreement between the Company and Indemnitee), without regard to any rights Indemnitee may have against the Fund Indemnitors, and, (iii) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of Indemnitee with respect to any claim for which Indemnitee has sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company. The Company and Indemnitee agree that the Fund Indemnitors are express third party beneficiaries of the terms of this Section 3(c).]

**4. Partial Indemnification.** If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of the expenses, judgments, fines or penalties actually or reasonably incurred by him in the investigation, defense, appeal or settlement of any civil or criminal action or proceeding, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such expenses, judgments, fines or penalties to which Indemnitee is entitled.

**5. [Indemnification of Related Parties.]** To the extent that Indemnitee is serving on the Board at the direction of any shareholder of the Company who, pursuant to the Certificate of Incorporation or contractual arrangement, shall have the right to elect or appoint Indemnitee to the Board

(an "Appointing Shareholder"), the Company shall indemnify and hold harmless such Appointing Shareholder and its affiliates from any threatened, pending or completed action or proceeding, whether civil, criminal, administrative or investigative, arising by reason of the fact that Appointing Shareholder (or its affiliates) have the ability to appoint or elect Indemnitee to the Board, provided however, that (i) any such indemnification shall be subject to the same limitations as set forth in Section 1 or otherwise herein; and (ii) no such indemnification shall be available to any Appointing Shareholder (or affiliate) in the event that Indemnitee shall not be entitled to indemnification in the same or any related action or proceeding. The terms of this Agreement as they relate to procedures for indemnification of Indemnitee shall apply to any such indemnification of Appointing Shareholder and its affiliates. ]

**6. Mutual Acknowledgment.** Both the Company and Indemnitee acknowledge that in certain instances, Federal law or applicable public policy may prohibit the Company from indemnifying its directors, officers or other advisors under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

**7. Severability.** Nothing in this Agreement is intended to require or shall be construed as requiring the Company to do or fail to do any act in violation of applicable law. The Company's inability, pursuant to court order, to perform its obligations under this Agreement shall not constitute a breach of this Agreement. The provisions of this Agreement shall be severable as provided in this Section 7. If this Agreement or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Company shall nevertheless indemnify Indemnitee to the full extent permitted by any applicable portion of this Agreement that shall not have invalidated, and the balance of this Agreement not so invalidated shall be enforceable in accordance with its terms.

**8. Exceptions.** Any other provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement to indemnify Indemnitee or to advance expenses in connection with any claim made against Indemnitee:

**(a) Excluded Acts.** Any acts or omissions or transactions from which [a director][an officer] may not be relieved of liability under Delaware Law;

**(b) Claims Initiated by Indemnitee.** With respect to proceedings or claims initiated or brought voluntarily by Indemnitee and not by way of defense, except with respect to proceedings brought to establish or enforce a right to indemnification under this Agreement or any other statute or law, but such indemnification or advancement of expenses may be provided by the Company in specific cases if the Board of Directors has approved the initiation or bringing of such suit;

**(c) Lack of Good Faith.** For any expenses incurred by the Indemnitee with respect to any proceeding instituted by Indemnitee to enforce or interpret this Agreement, if a court of competent jurisdiction determines that each of the material assertions made by the Indemnitee in such proceeding was not made in good faith or was frivolous;

**(d) Claims Under Section 16(b).** For expenses and the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute;

**(e) Insurance Payments.** To the extent that payment is actually made to the Indemnitee under a valid, enforceable and collectible insurance policy of the Company, and in the event the Company makes any indemnification payments to the Indemnitee and the Indemnitee is subsequently reimbursed from the proceeds of insurance, the Indemnitee will promptly refund such indemnification payments to the Corporation to the extent of such insurance reimbursement; or

**(f) Judicial Determination.** In connection with a judicial action by or in the right of the Company, in respect of any claim, issue or matter as to which the Indemnitee shall have been adjudged to be liable in the performance of his duty to the Company unless and only to the extent that any court in which such action was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, the Indemnitee is fairly and reasonably entitled to indemnity for such expenses as such court shall deem proper.

**9. Effectiveness of Agreement.** To the extent that the indemnification permitted under the terms of certain provisions of this Agreement exceeds the scope of the indemnification provided for under Delaware law, such provisions shall not be effective unless and until the Company's Certificate of Incorporation authorize such additional rights of indemnification. In all other respects, the balance of this Agreement shall be effective as of the date set forth on the first page.

**10. Construction of Certain Phrases.**

**(a)** For purposes of this Agreement, references to the "Company" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or agents, so that if Indemnitee is or was a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

**(b)** For purposes of this Agreement, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "serving at the request of the Company" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries.

**11. Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall constitute an original.

**12. Successors and Assigns.** This Agreement shall be binding upon the Company and its successors and assigns, and shall inure to the benefit of Indemnitee and Indemnitee's estate, heirs, legal representatives and assigns.

**13. Attorneys' Fees.** In the event that any action is instituted by Indemnitee under this Agreement to enforce or interpret any of the terms hereof, Indemnitee shall be entitled to be paid all court costs and expenses, including reasonable attorneys' fees, incurred by Indemnitee with respect to such action, unless as a part of such action, the court of competent jurisdiction determines that each of the material assertions made by Indemnitee as a basis for such action were not made in good faith or were frivolous. In the event of an action instituted by or in the name of the Company under this Agreement or to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be paid all court costs and expenses, including attorneys' fees, incurred by Indemnitee in defense of such action (including with respect to Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action the court determines that each of Indemnitee's material defenses to such action were made in bad faith or were frivolous.

**14. Notices.** All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed duly given (i) if delivered by hand and receipted for by the party addressee, on the date of such receipt, or (ii) if mailed by domestic certified or registered mail, properly addressed with postage prepaid, on the third business day after the date postmarked; otherwise a notice shall be deemed duly given when such notice shall be actually received by the addressee. Addresses for notice to either party are as shown on the signature page of this Agreement, or as subsequently modified by written notice.

**15. Choice of Law.** This Agreement shall be governed by and its provisions construed in accordance with the laws of the State of Delaware as applied to contracts between Delaware residents entered into and to be performed entirely within Delaware.

[Remainder of page intentionally left blank]

**IN WITNESS WHEREOF**, the parties hereto have executed this Agreement as of the date first above written.

AGREED TO AND ACCEPTED

INDEMNITEE:

COMPANY:

\_\_\_\_\_

\_\_\_\_\_

Address:

By:

Title:

\_\_\_\_\_

Address:

\_\_\_\_\_

840 Memorial Drive, 5<sup>th</sup> Floor  
Cambridge, MA 02139

*[Signature Page to Indemnification Agreement]*



**EMPLOYMENT AGREEMENT**

THIS EMPLOYMENT AGREEMENT (the "Agreement"), made this 8<sup>th</sup> day of April 2009, is entered into by Cerulean Pharma Inc., a Delaware corporation with its principal place of business at 161 First Street Cambridge, MA 02142 (the "Company"), and Oliver Fetzer (the "Employee").

The Company desires to employ the Employee and the Employee desires to be employed by the Company. In consideration of the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are acknowledged by the parties hereto, the parties agree as follows:

1. Term of Employment. The Company hereby agrees to employ the Employee and the Employee hereby accepts employment with the Company, upon the terms set forth in this Agreement, commencing on April 8<sup>th</sup>, 2009 (the "Commencement Date"). There shall be no definite term of employment, and the Employee's employment shall be at-will such that both the Company and the Employee remain free to end the employment relationship for any reason, at any time, with or without notice.

2. Title and Capacity. Effective on the Commencement Date, the Employee shall (i) serve as President and Chief Executive Officer of the Company and shall report to the Board of Directors of the Company (the "Board") and (ii) be appointed as a member of the Board. The Employee shall be based at the Company's headquarters in Cambridge, Massachusetts.

The Employee hereby accepts such employment and agrees to undertake the duties and responsibilities inherent in such position and such other duties and responsibilities as the Board shall from time to time reasonably assign to him. The Employee agrees to devote his entire business time, attention and energies to the business and interests of the Company. The

Employee agrees to abide by the rules, regulations, instructions, personnel practices and policies of the Company and any changes therein that may be adopted from time to time by the Company.

3. Compensation and Benefits.

3.1 Base Salary. The Company shall pay the Employee, in accordance with the Company's regular payroll practices, a base salary at the annualized rate of \$340,000 for fiscal year 2009, subject to adjustment on an annual basis thereafter by the Board.

3.2 Bonus. In addition to a base salary, the Employee will be eligible to receive a performance-based annual bonus for each fiscal year in which he is employed by the Company in the capacity of President and Chief Executive Officer. This bonus shall be based upon reasonably attainable annual quantitative and qualitative performance objectives that will be mutually agreed upon by the Board and the Employee. The Employee's annual bonus level target shall be set at fifty percent (50%) of Employee's base salary for the applicable fiscal year. The Board will determine, in its sole discretion, based upon its review of the achievement of the performance objectives for a given fiscal year and its consideration of the recommendation of the Compensation Committee, whether (and in what amount) a bonus award is payable to the Employee. Any bonus awarded to Employee for fiscal year 2009 will be prorated for the Employee's length of service within such year.

To be eligible to receive a bonus award, the Employee must be an active employee on the date any such bonuses are distributed.

3.3 Employee Benefits. The Employee shall be entitled to participate in all benefit plans and programs that the Company establishes and makes available to its employees to the extent that the Employee is eligible under (and subject to the provisions of) the plan

documents governing those programs. The Employee shall be entitled to twenty-five (25) days paid vacation per year plus personal days and paid holidays generally offered by the Company to its employees, each to be administered in accordance with Company policy.

3.4 Reimbursement of Expenses. The Company shall reimburse the Employee for all reasonable travel, entertainment and other expenses incurred or paid by the Employee in connection with, or related to, the performance of his duties, responsibilities or services under this Agreement in accordance with the Company's expense reimbursement policies as set forth in the Company's employee handbook, a copy of which has been provided to the Employee. The reimbursement of expenses hereunder shall be subject to the terms and conditions set forth in Section 19(e) of this Agreement.

### 3.5 Equity.

(a) On the Commencement Date, the Company will grant the Employee an option to purchase 1,392,438 shares of common stock of the Company \$.0001 par value per share ("Common Stock") at an exercise price equal to the fair market value of the Common Stock on the date of the grant (the "Initial Option"), as evidenced by Stock Option Agreements with the Employee substantially in the forms of Exhibit A and Exhibit B to this Agreement. The shares subject to the Initial Option shall vest over a four (4) year period in accordance with the terms and provisions of such Stock Option Agreements.

(b) Promptly following the closing of the Company's next round of equity financing in which convertible preferred stock is issued and sold by the Company (provided that such closing occurs during the term of this Agreement), the Company will recommend to the Board that the Employee be granted an option to purchase that number of shares of Common Stock which would result in the aggregate number of shares of Common

Stock owned by the Employee or subject to outstanding stock options held by the Employee representing five percent (5%) of the Company's Common Stock immediately following such closing (as calculated on a fully-diluted basis to include shares of Common Stock issuable upon conversion of then outstanding convertible preferred stock and issuable upon exercise of then outstanding stock options and warrants) (such option, the "Anti-Dilution Option"). The Anti-Dilution Option shall have an exercise price equal to the fair market value of the Common Stock on the date of grant, as determined by the Board, and shall be evidenced by Stock Option Agreements with the Employee substantially in the forms of Exhibit A and/or Exhibit B to this Agreement (except with respect to the number of shares covered by the option and the grant date of the option), and shall vest over a four (4) year period in accordance with the terms and provisions of such Stock Option Agreements.

3.6 Withholding. All salary, bonus and other compensation or benefits payable to the Employee shall be subject to applicable withholdings and taxes.

4. Payments Upon Resignation By The Employee Without Good Reason or Termination By The Company For Cause.

4.1 Payment upon Voluntary Resignation or Termination for Cause. If the Employee voluntarily resigns his employment other than for Good Reason (as defined in Section 4.2), or if the Company terminates the Employee for Cause (as defined in Section 4.3), the Company shall pay the Employee all accrued and unpaid base salary through the Employee's date of termination and any vacation that is accrued but unused as of such date. The Employee shall not be eligible for any severance or separation payments (including, but not limited to, those described in Sections 5, 6 and 7 of this Agreement) or any continuation of benefits (other than those provided for under the Federal Consolidated Omnibus Budget Reconciliation Act

("COBRA"), or any other compensation pursuant to this Agreement or otherwise. The Employee also shall have such rights, if any, with respect to outstanding stock options and restricted stock grants as may be provided under the agreement applicable to each.

4.2 Definition of "Good Reason". For purposes of this Agreement, "Good Reason" means the occurrence, without the Employee's written consent, of any of the events or circumstances set forth in clauses (a) through (c) below, provided, however, that an event described in clauses (a) through (c) below shall not constitute Good Reason unless it is communicated in writing, within 90 days of the first occurrence of an event giving rise to the claim, by the Employee to the Board or its successor and unless it is not corrected by the Company or its successor within thirty (30) days of the Company's receipt of such written notice:

(a) the assignment to the Employee of duties inconsistent in any material respect with the Employee's position (including status, offices, titles and reporting requirements), authority or responsibilities, or any other action or omission by the Company, in each case which results in a material diminution of the Employee's duties, authority or responsibilities;

(b) a material reduction in the Employee's base salary; or

(c) a change by the Company in the location at which the Employee performs his principal duties for the Company to a new location that is both (i) outside a radius of 50 miles from the Employee's principal residence and (ii) more than 30 miles from the location at which the Employee performed his principal duties for the Company.

If the Company fails to timely correct an event of Good Reason, the termination of Executive's employment shall become effective 60 days after such notice is received by the Company.

4.3 Definition of "Cause". For purposes of this Agreement, "Cause" is defined as: (i) a good faith finding by the Board (excluding the Employee, if applicable) of (a) the Employee's failure to (1) perform reasonably assigned lawful duties or (2) comply with a lawful instruction of the Board so long as, in the case of (2), the instruction is consistent with the scope and responsibilities of the Employee's position, or (b) the Employee's dishonesty, willful misconduct or gross negligence, or (c) the Employee's substantial and material failure or refusal to perform according to, or to comply with, the policies, procedures or practices established by the Company or the Board and, in the case of (a) or (c), the Employee has had ten (10) days written notice to cure his failure to so perform or comply; or (ii) the Employee's indictment, or the entering of a guilty plea or plea of "no contest" with respect to a felony or any crime involving moral turpitude.

#### 4.4 Taxes.

(a) In the event that the Company (i) undergoes a "Change in Ownership or Control" (as defined below) within four (4) years of the Commencement Date, (ii) no capital stock of the Company is readily tradeable on an established securities market or otherwise within the meaning of 280G(b)(5)(A)(ii)(I) of the Internal Revenue Code of 1986, as amended (the "Code") and (iii) the Employee becomes entitled to receive a Contingent Compensation Payment (as defined below) relating to such Change in Ownership or Control, then the Company shall determine which of the payments or benefits due to the Employee (under this Agreement or otherwise) following such Change in Ownership or Control constitute

Contingent Compensation Payments and the amount, if any, of the excise tax (the "Excise Tax") payable pursuant to Section 4999 of the Code by the Employee with respect to such Contingent Compensation Payments. If any such Excise Tax would be payable by the Employee, then the Company shall seek the approval by the Company's stockholders of the Contingent Compensation Payment in a manner intended to comply with Section 280G(b)(5)(B) of the Code (the "Cleansing Vote") such that the Employee will not be subject to the Excise Tax. The Company makes no representation or warranty to the Employee that the Cleansing Vote will result in the Company's stockholders approving the Contingent Compensation Payments.

(b) In the event the Code, rules and regulations under the Code or other applicable laws are amended after the date of this Agreement such that successfully obtaining the approval of the Company's stockholders of the Contingent Compensation Payments will no longer avoid the application of the Excise Tax to the Contingent Compensation Payments, the Company and the Employee agree to re-negotiate this Section 4 in good faith in order to minimize the impact of the Excise Tax (or any similar successor tax) on the Employee.

(c) For purposes of this Section 4.4, the following terms shall have the following respective meanings:

(i) "Change in Ownership or Control" shall mean a change in the ownership or effective control of the Company or in the ownership of a substantial portion of the assets of the Company determined in accordance with Section 280G(b)(2) of the Code.

(ii) "Contingent Compensation Payment" shall mean any payment (or benefit) in the nature of compensation that is made or made available (under this Agreement or otherwise) to a "disqualified individual" (as defined in Section 280G(c) of the

Code) and that is contingent (within the meaning of Section 280G(b)(2)(A)(i) of the Code) on a Change in Ownership or Control of the Company.

(d) The provisions of this Section 4.4 are intended to apply to any and all payments or benefits available to the Employee under this Agreement or any other agreement or plan of the Company under which the Employee receives Contingent Compensation Payments. The obligations set forth in this Section 4.4 will terminate and be of no further force or effect on the date that is four (4) years from the Commencement Date.

5. Termination Without Cause; Resignation for Good Reason. If the Employee's employment with the Company is terminated by the Company without Cause (as defined in Section 4.3), or by the Employee's voluntary resignation for Good Reason (as defined in Section 4.2), other than in connection with a Change in Control (as defined in Section 7.2(a)), then the Employee shall be paid all accrued and unpaid base salary and any accrued but unused vacation through the date of termination. In addition, subject to the Employee's execution and non-revocation of a binding severance and mutual release agreement in a form satisfactory to the Company (hereinafter, a "Severance Agreement"), the Employee shall be eligible to receive the following separation benefits:

5.1 an amount equal to (i) nine (9) months of Employee's weighted average base salary for the 12 months preceding the Employee's date of termination (or for such lesser period as the Employee has been employed by the Company prior to such termination) plus (ii) an amount equal to three-fourths (3/4) of the last bonus, if any, paid to the Employee pursuant to Section 3.2, all of which shall be payable, in full and in a lump-sum cash payment (subject to applicable withholdings) within thirty (30) days following the date of termination, provided that the Severance Agreement has been executed and any applicable revocation period with respect



thereto has expired as of such date. The payment of severance hereunder shall be subject to the terms and conditions of Section 19 of this Agreement; and

5.2 upon the Employee's termination from employment pursuant to this Section 5, the Company shall continue the Employee and his dependants on its medical and dental plans in accordance with the applicable plans, or to the extent the Employee and his dependants cannot be maintained on such plans, the Company will obtain comparable policies for the Employee and shall pay only that portion of the medical and dental premiums that it pays on behalf of its actively employed executives who receive the same type of coverage for a period of nine (9) months after the Employee's termination; provided, however, that if the Employee becomes re-employed with another employer and is eligible to receive such benefits from such employer on terms at least as favorable to the Employee and his dependants as those being provided by the Company, then the Company shall no longer be required to provide those particular benefits to the Employee and his dependants. At the end of the nine (9) month period, the Employee may continue such policies on his own behalf or pursuant to COBRA, if applicable, and shall be responsible for all premiums thereafter. The provision of benefits hereunder shall be subject to the terms and conditions of Section 19 of this Agreement.

6. Termination by Reason of Death or Disability.

6.1 If the Employee's employment with the Company is terminated by reason of the Employee's death or Disability (as defined below), then the Employee (or his estate, if applicable) shall be paid, within thirty (30) days of the date of the Employee's death or determination of Disability, all accrued and unpaid base salary and any accrued but unused vacation through the date of termination. In addition, subject to the execution and non-revocation of a Severance Agreement by the Employee, his estate or his legal representative(s),

as applicable, the Employee or his estate, as applicable, shall also be eligible to receive an annual bonus in an amount equal to the total bonus, if any, that he would have been paid for the year in which his termination by reason of death or Disability occurred, pro-rated for the length of service since the last bonus period. This pro-rata bonus, if any, shall be payable in a lump sum no later than the later of (i) two and a half months after the end of the Company's tax year in which the bonus is earned and (ii) two and a half months after the end of the employee's tax year in which the bonus is earned. The pro-rata bonus shall be subject to all applicable withholding taxes, and shall be subject to the terms and conditions set forth in Section 19 of this Agreement.

6.2 For purposes of this Agreement, "Disability" shall mean the Employee's absence from the full-time performance of the Employee's duties with the Company for 180 consecutive calendar days as a result of incapacity due to mental or physical illness which is determined to be total and permanent by a physician selected by the Company or its insurers and acceptable to the Employee or the Employee's legal representative.

#### 7. Termination Following Change of Control.

7.1 Benefits to Employee Upon a Change of Control Termination. In the event of a Change of Control Termination (as defined in Section 7.2(c) below), the Employee shall be entitled to all accrued and unpaid base salary and any accrued but unused vacation through the date of termination. In addition, subject to the Employee's execution and non-revocation of a binding Severance Agreement, the Employee shall be eligible to receive the following separation benefits:

(a) the separation benefits described in and payable at the time and in the manner set forth in Sections 5.1 and 5.2 above, except that all references to "nine (9) months"

in such Sections shall be replaced with “twelve (12) months” for purposes of this Section 7, and the words “three-fourths (3/4) of” in Section 5.1 shall be deleted; and

(b) full and immediate vesting of the shares subject to the Initial Option, the Anti-Dilution Option (provided the Company has granted to the Employee the Anti-Dilution Option in accordance with Section 3.5(b)) and any other stock option or other equity awards that may be granted to the Employee by the Company in the future. The Initial Option and the Anti-Dilution Option, and any additional equity awards granted to the Employee will remain exercisable following termination to the extent set forth in the applicable stock option agreements.

7.2 Key Definitions. As used herein, the following terms shall have the following respective meanings:

(a) “Change in Control” means an event or occurrence set forth in any one or more of subsections (i) through (iv) below (including an event or occurrence that constitutes a Change in Control under one of such subsections but is specifically exempted from another such subsection):

(i) the acquisition by an individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) (a “Person”) of beneficial ownership of any capital stock of the Company if, after such acquisition, such Person beneficially owns (within the meaning of Rule 13d-3 promulgated under the Exchange Act) more than 50% of either (x) the then-outstanding shares of common stock of the Company (the “Outstanding Company Common Stock”) or (y) the combined voting power of the then-outstanding securities of the Company entitled to vote generally in the election of directors (the “Outstanding Company Voting Securities”); or

(ii) the consummation of a merger, consolidation, reorganization, recapitalization or share exchange involving the Company or a sale or other disposition of all or substantially all of the assets of the Company in one or a series of transactions (a "Business Combination"), unless, immediately following such Business Combination, all or substantially all of the individuals and entities who were the beneficial owners of the Outstanding Company Common Stock and Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the then-outstanding shares of common stock and the combined voting power of the then-outstanding securities entitled to vote generally in the election of directors, respectively, of the resulting or acquiring corporation in such Business Combination (which shall include, without limitation, a corporation which as a result of such transaction owns the Company or substantially all of the Company's assets either directly or through one or more subsidiaries) (such resulting or acquiring corporation is referred to herein as the "Acquiring Corporation") in substantially the same proportions as their ownership, immediately prior to such Business Combination, of the Outstanding Company Common Stock and Outstanding Company Voting Securities, respectively; or

(iii) approval by the stockholders of the Company of a complete or substantially complete liquidation or dissolution of the Company.

(b) "Change in Control Date" means the first date during the period of time the Employee is employed pursuant to this Agreement on which a Change in Control occurs. Anything in this Agreement to the contrary notwithstanding, if (a) a Change in Control occurs, (b) the Employee's employment with the Company is terminated prior to the date on which the Change in Control occurs, and (c) it is reasonably demonstrated by the Employee that

such termination of employment (i) was at the request of a third party who has taken steps reasonably calculated to effect a Change in Control or (ii) otherwise arose in connection with or in anticipation of a Change in Control, then for all purposes of this Agreement the "Change in Control Date" shall mean the date immediately prior to the date of such termination of employment.

(c) Change of Control Termination occurs where the Employee is terminated without Cause (as defined in Section 4.3) or resigns for Good Reason (as defined in Section 4.2), in either case within twelve (12) months following the Change in Control Date.

8. Mitigation. The Employee shall not be required to mitigate the amount of any payment or benefits provided for in Sections 5 or 7 by seeking other employment or otherwise except with regard to medical and dental coverage if new employment is obtained.

9. Other Agreements. The Employee agrees to become bound by and subject to the obligations of (i) the Second Amended and Restated Right of First Refusal and Co-Sale Agreement and (ii) the Second Amended and Restated Voting Agreement, in each case dated as of December 7, 2007 and by and among the Company and certain of its stockholders, to the same extent as a "Founder" thereunder (as defined therein). Employee acknowledges that he has received and reviewed a copy of each of the foregoing agreements.

10. Survival. The provisions of Sections 5, 6 and 7 shall survive the termination of this Agreement for any reason.

11. Invention and Non-Disclosure Agreement. The Employee and the Company shall enter into the Invention and Non-Disclosure Agreement attached hereto as Exhibit C, effective as of the Commencement Date.

12. Notices. Any notices delivered under this Agreement shall be deemed duly delivered three (3) business days after it is sent by registered or certified mail, return receipt requested, postage prepaid, or one (1) business day after it is sent for next-business day delivery signature required via a reputable nationwide overnight courier service, in each case to the address of the recipient set forth in the introductory paragraph hereto. Either party may change the address to which notices are to be delivered by giving notice of such change to the other party in the manner set forth in this Section 12.

13. Pronouns. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular forms of nouns and pronouns shall include the plural, and vice versa.

14. Entire Agreement. This Agreement and all exhibits hereto constitute the entire agreement between the parties and supersedes all prior agreements and understandings, whether written or oral, relating to the subject matter of this Agreement.

15. Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Employee.

16. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts (without reference to the conflict of laws provisions thereof). Any action, suit or other legal proceeding arising under or relating to any provision of this Agreement shall be commenced only in a court of the Commonwealth of Massachusetts (or, if appropriate, a federal court located within the Commonwealth of Massachusetts), and the Company and the Employee each consents to the jurisdiction of such a court. The Company and the Employee each hereby irrevocably waive any right to a trial by jury in any action, suit or other legal proceeding arising under or relating to any provision of this Agreement.

17. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of both parties and their respective successors and assigns, including any corporation with which or into which the Company may be merged or which may succeed to its assets or business; provided, however, that the obligations of the Employee are personal and shall not be assigned by him.

18. Acknowledgment. The Employee states and represents that he has had an opportunity to fully discuss and review the terms of this Agreement with an attorney. The Employee further states and represents that he has carefully read this Agreement, understands the

contents herein, freely and voluntarily assents to all of the terms and conditions hereof, and signs his name of his own free act.

19. Payments Subject to Section 409A. Subject to the provisions in this Section 19, any severance payments or benefits under this Agreement shall begin only upon the date of the Employee's "separation from service" (determined as set forth below) which occurs on or after the date of termination of the Employee's employment. The following rules shall apply with respect to distribution of the payments and benefits, if any, to be provided to the Employee under this Agreement:

(a) It is intended that each installment of the severance payments and benefits provided under this Agreement shall be treated as a separate "payment" for purposes of Section 409A of the Code and the guidance issued thereunder ("Section 409A"). Neither the Company nor the Employee shall have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A.

(b) If, as of the date of Employee's "separation from service" from the Company, the Employee is not a "specified employee" (within the meaning of Section 409A), then each installment of the severance payments and benefits shall be made on the dates and terms set forth in this Agreement.

(c) If, as of the date of the Employee's "separation from service" from the Company, the Employee is a "specified employee" (within the meaning of Section 409A), then:

(i) Each installment of the severance payments and benefits due under this Agreement that, in accordance with the dates and terms set forth herein, will in all circumstances, regardless of when the separation from service occurs, be paid within the short-



term deferral period (as defined under Section 409A) shall be treated as a short-term deferral within the meaning of Treasury Regulation § 1.409A-1(b)(4) to the maximum extent permissible under Section 409A; and

(ii) Each installment of the severance payments and benefits due under this Agreement that is not described in paragraph c(i) above and that would, absent this subsection, be paid within the six-month period following the Employee's "separation from service" from the Company shall not be paid until the date that is six months and one day after such separation from service (or, if earlier, the Employee's death), with any such installments that are required to be delayed being accumulated during the six-month period and paid in a lump sum on the date that is six months and one day following the Employee's separation from service and any subsequent installments, if any, being paid in accordance with the dates and terms set forth herein; provided, however, that the preceding provisions of this sentence shall not apply to any installment of severance payments and benefits if and to the maximum extent that that such installment is deemed to be paid under a separation pay plan that does not provide for a deferral of compensation by reason of the application of Treasury Regulation § 1.409A-1(b)(9)(iii) (relating to separation pay upon an involuntary separation from service). Any installments that qualify for the exception under Treasury Regulation § 1.409A-1(b)(9)(iii) must be paid no later than the last day of the Employee's second taxable year following the taxable year in which the separation from service occurs.

(d) The determination of whether and when the Employee's separation from service from the Company has occurred shall be made and in a manner consistent with, and based on the presumptions set forth in, Treasury Regulation § 1.409A-1(h).

(e) All reimbursements and in-kind benefits provided under this Agreement shall be made or provided in accordance with the requirements of Section 409A to the extent that such reimbursements or in-kind benefits are subject to Section 409A, including, where applicable, the requirements that (i) any reimbursement is for expenses incurred during the Employee's lifetime (or during a shorter period of time specified in this Agreement), (ii) the amount of expenses eligible for reimbursement during a calendar year may not affect the expenses eligible for reimbursement in any other calendar year, (iii) the reimbursement of an eligible expense will be made on or before the last day of the calendar year following the year in which the expense is incurred and (iv) the right to reimbursement is not subject to set off or liquidation or exchange for any other benefit.

(f) Notwithstanding anything herein to the contrary, the Company shall have no liability to the Employee or to any other person if the payments and benefits provided hereunder that are intended to be exempt from or compliant with Section 409A are not so exempt or compliant.

20. Miscellaneous.

20.1 No delay or omission by the Company in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by the Company on any one occasion shall be effective only in that instance and shall not be construed as a bar to or waiver of any right on any other occasion.

20.2 The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.

20.3 In case any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year set forth above.

CERULEAN PHARMA INC.

By: /s/ Alan Crane

Title: President & CEO

EMPLOYEE

/s/ Oliver Fetzer

Oliver Fetzer, Ph.D

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 BELOW, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS EXEMPT FROM REGISTRATION.

### WARRANT TO PURCHASE STOCK

Company: Tempo Pharmaceuticals, Inc., a Delaware corporation

Number of Shares: 15,000, subject to adjustment

Class of Stock: Series B Convertible Preferred Stock, \$0.01 par value per share

Warrant Price: \$2.00, subject to adjustment

Issue Date: August 8, 2008 Expiration

Date: August 8, 2018

Credit Facility: This Warrant is issued in connection with that certain Loan and Security Agreement of even date herewith between Silicon Valley Bank and the Company.

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK (Silicon Valley Bank, together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, is referred to hereinafter as "Holder") is entitled to purchase the number of fully paid and non-assessable shares (the "Shares") of the above-stated class of stock (the "Class") of the above-named company (the "Company") at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Article 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant.

#### ARTICLE 1. EXERCISE.

1.1 Method of Exercise. Holder may exercise this Warrant by delivering the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached as Appendix 1 to the principal office of the Company. Unless Holder is exercising the conversion right set forth in Article 1.2, Holder shall also deliver to the Company a check, wire transfer (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Conversion Right. In lieu of exercising this Warrant as specified in Article 1.1, Holder may from time to time convert this Warrant, in whole or in part, into a number of Shares determined by dividing (a) the aggregate fair market value of the Shares or other securities otherwise issuable upon exercise of this Warrant minus the aggregate Warrant Price of such Shares by (b) the fair market value of one Share. The fair market value of the Shares shall be determined pursuant to Article 1.3.

1.3 Fair Market Value. If the Company's common stock is traded in a public market and the Shares are common stock, the fair market value of a Share shall be the closing price of a share of common stock reported for the business day immediately before Holder delivers this Warrant together with its Notice of Exercise to the Company (or in the instance where the Warrant is exercised immediately prior to the effectiveness of the Company's initial public offering ("IPO"), the "price to public" per share price specified in the final prospectus relating to such offering). If the Company's common stock is traded in a public market and the Shares are preferred stock, the fair market value of a Share shall be the closing price of a share of the Company's common stock reported for the business day immediately before Holder delivers this Warrant together with its Notice of Exercise to the Company (or, in the instance where the Warrant is exercised immediately prior to the effectiveness of the IPO, the initial "price to public" per share price specified in the final prospectus relating to such offering), in both cases, multiplied by the number of shares of the Company's common stock into which a Share is convertible. If the Company's common stock is not traded in a public market, the Board of Directors of the Company shall determine fair market value in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Promptly after Holder exercises or converts this Warrant and, if applicable, the Company receives payment of the aggregate Warrant Price, the Company shall deliver to Holder certificates for the Shares acquired and, if this Warrant has not been fully exercised or converted and has not expired, a new Warrant representing the Shares not so acquired.

1.5 Replacement of Warrants. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of mutilation, on surrender and cancellation of this Warrant, the Company shall execute and deliver, in lieu of this Warrant, a new warrant of like tenor.

1.6 Treatment of Warrant Upon Acquisition of Company.

1.6.1 "Acquisition". For the purpose of this Warrant, "Acquisition" means any sale, license, or other disposition of all or substantially all of the assets of the Company, or any reorganization, consolidation, merger or sale of outstanding capital stock of the Company where the holders of the Company's securities before the transaction beneficially own less than a majority of the outstanding voting securities of the surviving entity after the transaction.

1.6.2 Treatment of Warrant at Acquisition.

A) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition in which the sole consideration is cash and/or Marketable Securities, either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will expire upon the consummation of such Acquisition. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition

giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

B) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition that is an “arm’s length” sale of all or substantially all of the Company’s assets (and only its assets) to a third party that is not an Affiliate (as defined below) of the Company (a “True Asset Sale”), either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will continue until the Expiration Date if the Company continues as a going concern following the closing of any such True Asset Sale. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

C) Upon the closing of any Acquisition other than those particularly described in subsections (A) and (B) above, the successor entity shall assume the obligations of this Warrant, and this Warrant shall be exercisable for the same securities, cash, and property as would be payable for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on the record date for the Acquisition and subsequent closing; provided, that the successor entity shall not be required to assume the Company’s obligations set forth in Section 3.3 below except to the extent that such successor entity, in connection with such Acquisition, grants substantially similar or substantially equivalent registration rights to the holders of the outstanding shares of the Class. The Warrant Price and/or number of Shares shall be adjusted accordingly.

D) As used in this Section 1.6, (a) Marketable Securities” means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise or convert this Warrant on or prior to the closing thereof is then traded on a national securities exchange or over-the-counter market, and (iii) Holder would not be not be restricted by contract or by applicable federal and state securities laws from publicly re-selling, within six (6) months following the closing of such Acquisition, all of the issuer’s shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise or convert this Warrant in full on or prior to the closing of such Acquisition; and (b) “Affiliate” shall mean any person or entity that owns or controls directly or indirectly ten percent (10%) or more of the stock of Company, any person or entity that controls or is controlled by or is under common control with such persons or entities, and each of such person’s or entity’s officers, directors, joint venturers or partners, as applicable.

## ARTICLE 2. ADJUSTMENTS TO THE SHARES.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend on the outstanding shares of the Class payable in common stock or other securities, then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without cost to Holder, the total number and kind of securities to which Holder would have been entitled had Holder owned the Shares of record as of the date the dividend occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any reclassification, exchange, substitution, or other event that results in a change of the number and/or class of the securities issuable upon exercise or conversion of this Warrant, Holder shall be entitled to receive, upon exercise or conversion of this Warrant, the number and kind of securities and property that Holder would have received for the Shares if this Warrant had been exercised immediately before such reclassification, exchange, substitution, or other event. Such an event shall include, without limitation, any automatic conversion of the outstanding or issuable securities of the Company of the same class or series as the Shares to common stock pursuant to the terms of the Company's Certificate of Incorporation. The Company or its successor shall promptly issue to Holder an amendment to this Warrant setting forth the number and kind of such new securities or other property issuable upon exercise or conversion of this Warrant as a result of such reclassification, exchange, substitution or other event that results in a change of the number and/or class of securities issuable upon exercise or conversion of this Warrant. The amendment to this Warrant shall provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Article 2 including, without limitation, adjustments to the Warrant Price and to the number of securities or property issuable upon exercise of the new Warrant. The provisions of this Article 2.2 shall similarly apply to successive reclassifications, exchanges, substitutions, or other events.

2.3 Adjustment for Diluting Issuances. The number of shares of common stock issuable upon conversion of the Shares shall be subject to adjustment, from time to time in the manner set forth in the Company's Certificate of Incorporation as if the Shares were issued and outstanding on and as of the date of any such required adjustment. The provisions set forth for the Class in the Company's Certificate of Incorporation relating to the above in effect as of the Issue Date may not be amended, modified or waived, without the prior written consent of Holder unless such amendment, modification or waiver affects the rights associated with the Shares in the same manner as such amendment, modification or waiver affects the rights associated with all other shares of the Class.

2.4 No Impairment. The Company shall not, by amendment of its Certificate of Incorporation or through a reorganization, transfer of assets, consolidation, merger, dissolution, issue, or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed under this Warrant by the Company, but shall at all times in good faith assist in carrying out of all the provisions of this Article 2 and in taking all such action as may

be necessary or appropriate to protect Holder's rights under this Article against impairment.

2.5 Fractional Shares. No fractional Shares shall be issuable upon exercise or conversion of the Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional share interest arises upon any exercise or conversion of the Warrant, the Company shall eliminate such fractional share interest by paying Holder the amount computed by multiplying the fractional interest by the fair market value of a full Share.

2.6 Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company shall promptly notify Holder in writing, and, at the Company's expense, promptly compute such adjustment, and furnish Holder with a certificate of its Chief Financial Officer setting forth such adjustment and the facts upon which such adjustment is based. The Company shall, upon written request, furnish Holder a certificate setting forth the Warrant Price, Class and number of Shares in effect upon the date thereof and the series of adjustments leading to such Warrant Price, Class and number of Shares.

### ARTICLE 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The initial Warrant Price referenced on the first page of this Warrant is not greater than the price per share at which shares of the same class and series as the Shares were last issued in an arms-length transaction in which at least \$500,000 of such shares were sold.

(b) All Shares which may be issued upon the exercise of the purchase right represented by this Warrant, and all securities, if any, issuable upon conversion of the Shares, shall, upon issuance, be duly authorized, validly issued, fully paid and non-assessable when paid for in accordance with the terms hereof or the terms of securities issuable upon conversion of the Shares, and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws.

(c) The Company's capitalization table attached hereto as Schedule 1 is true and complete as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time (a) to declare any dividend or distribution upon the outstanding shares of the Class, whether in cash, property, stock, or other securities and whether or not a regular cash dividend; (b) to offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual pre-emptive rights); (c) to effect any reclassification, reorganization or recapitalization of the shares of the Class; (d) to effect an Acquisition or to liquidate, dissolve or wind up; or (e) offer holders of registration rights the opportunity to participate in an underwritten public offering of the Company's securities for cash, then, in connection with each such event, the Company shall give Holder: (1) at least 10 days prior written notice of the date on which a record will be taken for such



dividend, distribution, or subscription rights (and specifying the date on which the holders of shares of the same class and series as the Shares will be entitled thereto) or for determining rights to vote, if any, in respect of the matters referred to in (c) and (d) above; (2) in the case of the matters referred to in (c) and (d) above at least 10 days prior written notice of the date when the same will take place (and specifying the date on which the holders of shares of the same class and series as the Shares will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event); and (3) in the case of the matter referred to in (e) above, the same notice as is given to the holders of such registration rights.

3.3 Registration Under Securities Act of 1933, as amended. The Company agrees that the Shares or, if the Shares are convertible into common stock of the Company, such common stock, shall have certain incidental, or “Piggyback,” and S-3 registration rights pursuant to and as set forth in that certain Series B Convertible Preferred Stock Purchase Agreement dated as of December 7, 2007 among the Company and the other parties named therein, as amended and in effect from time to time (the “Purchase Agreement”). Holder has, on and as of the date hereof, become a party to certain sections of the Purchase Agreement for purposes of effecting the foregoing grant of registration rights.

3.4 No Shareholder Rights. Except as provided in this Warrant, Holder will not have any rights as a shareholder of the Company until the exercise of this Warrant.

3.5 Certain Information. The Company agrees to provide Holder at any time and from time to time with such information as Holder may reasonably request for purposes of Holder’s compliance with regulatory, accounting and reporting requirements applicable to Holder.

ARTICLE 4. REPRESENTATIONS, WARRANTIES AND COVENANTS OF THE HOLDER. The Holder represents and warrants to, and agrees with, the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder will be acquired for investment for Holder’s account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and

acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise or conversion hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise or conversion hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available.

4.6 Lock-Up Agreement. The Holder hereby agrees that, during the period of duration (not to exceed one hundred eighty (180) days) specified by the Company and an underwriter of Common Stock or other securities of the Company (the "Lock-Up Period"), following the effective date of a registration statement of the Company filed under the Act relating to the IPO of the Company, the Holder shall not, to the extent requested by the Company and such underwriter, directly or indirectly sell, offer to sell, contract to sell (including any short sale), grant any option to purchase, or otherwise transfer or dispose of (other than to donees who agree to be similarly bound) any securities of the Company held by it at any time during the Lock-Up Period except Common Stock included in such registration; provided, however, that all officers and directors of the Company, Founder Holders and stockholders holding in excess of one percent (1%) of the outstanding Common Stock of the Company (treating all Preferred Stock on an as-converted to Common Stock basis) enter into similar agreements.

#### ARTICLE 5. MISCELLANEOUS.

5.1 Term: This Warrant is exercisable in whole or in part at any time and from time to time on or before the Expiration Date.

5.2 Legends. This Warrant and the Shares (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) shall be imprinted with a legend in substantially the following form:

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE ACT, OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 OF THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE COMPANY TO SILICON VALLEY BANK DATED AS OF \_\_\_\_\_, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED

UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS EXEMPT FROM REGISTRATION.

5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issuable upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned in whole or in part without compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to SVB Financial Group (Silicon Valley Bank's parent company) or any other affiliate of Holder, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act and agrees in writing to be bound by the terms and conditions of this Warrant.

5.4 Transfer Procedure. After receipt by Silicon Valley Bank ("Bank") of the executed Warrant, Bank will transfer all of this Warrant to SVB Financial Group, Holder's parent company. Subject to the provisions of Article 5.3 and upon providing the Company with written notice, SVB Financial Group and any subsequent Holder may transfer all or part of this Warrant or the Shares issuable upon exercise of this Warrant (or the securities issuable directly or indirectly, upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, SVB Financial Group or any subsequent Holder will give the Company notice of the portion of the Warrant being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable). The Company may refuse to transfer this Warrant or the Shares to any person who directly competes with the Company, unless, in either case, the stock of the Company is publicly traded.

5.5 Notices. All notices and other communications from the Company to the Holder, or vice versa, shall be deemed delivered and effective when given personally or mailed by first-class registered or certified mail, postage prepaid (or on the first business day after transmission by facsimile), at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such holder from time to time. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

SVB Financial Group  
Attn: Treasury Department  
3003 Tasman Drive, HA 200  
Santa Clara, CA 95054  
Telephone: 408-654-7400  
Facsimile: 408-496-2405

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

Tempo Pharmaceuticals, Inc.  
Attn: President  
161 First Street, Suite 2A  
Cambridge, MA  
Telephone: 617-551-9600  
Facsimile: 617-494-1544

5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorney's Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Automatic Conversion upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be converted pursuant to Section 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised or converted, and the Company shall promptly deliver a certificate representing the Shares (or such other securities) issued upon such conversion to Holder.

5.9 Counterparts. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement.

*[Remainder of page left blank intentionally]*

5.10 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to its principles regarding conflicts of law.

“COMPANY”

TEMPO PHARMACEUTICALS, INC.

By: /s/ Alan L. Crane

Name: Alan L. Crane  
(Print)

Title: Chief Executive Officer

“HOLDER”

SILICON VALLEY BANK

By: \_\_\_\_\_

Name: \_\_\_\_\_  
(Print)

Title:

5.10 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to its principles regarding conflicts of law.

“COMPANY”

TEMPO PHARMACEUTICALS, INC.

By: \_\_\_\_\_

Name: \_\_\_\_\_

(Print)

Title:

“HOLDER”

SILICON VALLEY BANK

By: /s/ Adam J. Millsom

Name: Adam J. Millsom

(Print)

Title: Relationship Manager

NOTICE OF EXERCISE

1. Holder elects to purchase \_\_\_\_\_ shares of the Common/Series \_\_\_\_\_ Preferred [strike one] Stock of \_\_\_\_\_ pursuant to the terms of the attached Warrant, and tenders payment of the purchase price of the shares in full.

[or]

1. Holder elects to convert the attached Warrant into Shares/cash [strike one] in the manner specified in the Warrant. This conversion is exercised for \_\_\_\_\_ of the Shares covered by the Warrant.

[Strike paragraph that does not apply.]

2. Please issue a certificate or certificates representing the Shares in the name specified below:

\_\_\_\_\_  
Holders Name

\_\_\_\_\_

\_\_\_\_\_  
(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Article 4 of the Warrant as of the date hereof.

HOLDER:

\_\_\_\_\_  
By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

(Date): \_\_\_\_\_

THIS WARRANT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THIS WARRANT MAY NOT BE SOLD, PLEDGED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAWS OR AN OPINION OF COUNSEL ACCEPTABLE TO CERULEAN PHARMA INC. THAT SUCH REGISTRATION IS NOT REQUIRED.

Warrant No.

Date of Issuance: May , 2010

Original Issue Date (as defined in Section 3(b)): May , 2010

**CERULEAN PHARMA INC.**

**Stock Purchase Warrant**

Cerulean Pharma Inc., a Delaware corporation (the "Company"), for value received, hereby certifies that , or its registered assigns (hereinafter together referred to as the "Registered Holder"), is entitled, subject to the terms and conditions set forth below, to purchase from the Company, at any time or from time on or after the initial closing of a Qualified Financing and prior to 5:00 p.m., Boston time, on the Expiration Date, up to such number of Warrant Shares of the Company as is equal to the Share Number, at a purchase price per share equal to the Purchase Price.

1. Certain Definitions. As used in this Warrant, the following terms shall have the following respective meanings:

(a) "Bridge Notes" means the Note plus the other Convertible Promissory Notes, all of substantially identical tenor except as to the principal amount, issued by the Company on or about the Original Issue Date.

(b) "Expiration Date" means the seventh anniversary of the initial closing of the Qualified Financing.

(c) "Loan Amount" means the principal amount of cash loaned to the Company by the initial Registered Holder, as evidenced by the Note.

(d) "Note" means the Convertible Promissory Note dated on or about the original date of this Warrant and issued by the Company to the initial Registered Holder.

(e) "Purchase Price" means, subject to adjustment as provided herein, the price per share paid for the Qualified Financing Securities by the investors in the Qualified Financing.

(f) "Qualified Financing" means the first issuance of convertible preferred stock by the Company to investors after the Original Issue Date, with immediately available



gross proceeds to the Company (including proceeds from the Bridge Notes and any other indebtedness of the Company that convert into equity in such financing) of at least \$10,000,000.

(g) "Qualified Financing Securities" means the shares of capital stock issued by the Company in the Qualified Financing.

(h) "Required Lenders" means the holders of at least 60% of the aggregate amount of outstanding principal under the Bridge Notes.

(i) "Share Number" means, subject to adjustment as provided herein, the number obtained by dividing ten percent (10%) of the Loan Amount by the Purchase Price.

(j) "Warrant Shares" means, subject to adjustment as provided herein, the shares of Warrant Stock issued or issuable upon exercise of this Warrant.

(k) "Warrant Stock" means the Qualified Financing Securities issued by the Company in the Qualified Financing. If the Qualified Financing Securities are converted into common stock pursuant to the Company's Certificate of Incorporation, then, effective upon such conversion, "Warrant Stock" shall mean common stock, and the Registered Holder shall thereupon have the right to purchase the number of shares of common stock which would have been receivable by the Registered Holder upon the exercise of this Warrant for shares of Warrant Stock immediately prior to such conversion of such shares of Warrant Stock into shares of common stock, and in such event appropriate adjustment shall be made to the per share purchase price for the common stock and appropriate provisions shall be made with respect to the rights and interests of the Registered Holder to the end that the provisions hereof shall thereafter be applicable to any shares of common stock deliverable upon the exercise hereof.

2. Exercise. This Warrant shall become exercisable concurrently with the conversion of the Note into Qualified Financing Securities in the Qualified Financing, and may be exercised thereafter (but prior to the Expiration Date) as follows:

(a) Exercise for Cash. The Registered Holder may, at its option, elect to exercise this Warrant, in whole or in part and at any time or from time to time, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full, in lawful money of the United States, of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise.

(b) Cashless Exercise.

(i) The Registered Holder may, at its option, elect to exercise this Warrant, in whole or in part and at any time or from time to time, on a cashless basis, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, by canceling a portion of this Warrant in payment of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise. In the event of an exercise pursuant to this Section 2(b), the number of

Warrant Shares issued to the Registered Holder shall be determined according to the following formula:

$$X = \frac{Y(A-B)}{A}$$

Where: X = the number of Warrant Shares that shall be issued to the Registered Holder;

Y = the number of Warrant Shares for which this Warrant is being exercised (which shall include both the number of Warrant Shares issued to the Registered Holder and the number of Warrant Shares subject to the portion of this Warrant being cancelled in payment of the Purchase Price);

A = the Fair Market Value (as defined below) of one share of Warrant Stock; and

B = the Purchase Price then in effect.

(ii) The Fair Market Value per share of Warrant Stock shall be determined as follows:

(1) If the Warrant Stock is listed on a national securities exchange or another nationally recognized trading system, the Fair Market Value per share of Warrant Stock shall be deemed to be (i) the average of the closing sales prices of the Warrant Stock on the national securities exchange or other nationally recognized trading system where such security is listed or traded as reported by Bloomberg Financial Markets (or a comparable reporting service of national reputation selected by the Company and reasonably acceptable to the Required Lenders if Bloomberg Financial Markets is not then reporting sales prices of such security) (collectively, "Bloomberg") for the 10 consecutive trading days immediately preceding the Exercise Date (as defined below), or if there is no sales price for such period, the last sales price reported by Bloomberg for such period, or (ii) if the foregoing does not apply, the last sales price of such security in the over-the-counter market on the pink sheets or bulletin board for such security as reported by Bloomberg, or if no sales price is so reported for such security, the last bid price of such security as reported by Bloomberg, in each case during the 10 consecutive trading days immediately preceding the Exercise Date.

(2) If the Warrant Stock is not listed on a national securities exchange or another nationally recognized trading system, the Fair Market Value per share of Warrant Stock shall be deemed to be the amount most recently determined by the Board of Directors of the Company (the "Board") in the exercise of its good faith judgment to represent the fair market value per share of the Warrant Stock. Notwithstanding the foregoing, if the Board has not made such a determination within the three-month period prior to the Exercise Date, then (A) the Board shall make, and shall provide or cause to be provided to the Registered Holder notice of, a determination of the Fair Market Value per share of the Warrant Stock within 15 days of a request by the Registered Holder that it do so, and (B) the exercise of this Warrant pursuant to this Section 2(b) shall be delayed until such determination is made and notice thereof

is provided to the Registered Holder.

(c) Exercise Date. Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in Section 2(a) or 2(b) above (the "Exercise Date"). At such time, the person or persons in whose name or names any certificates for Warrant Shares shall be issuable upon such exercise as provided in Section 2(d) below shall be deemed to have become the holder or holders of record of the Warrant Shares represented by such certificates.

(d) Issuance of Certificates. As soon as practicable after the exercise of this Warrant in whole or in part, the Company, at its expense, will cause to be issued in the name of, and delivered to, the Registered Holder, or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of full Warrant Shares to which the Registered Holder shall be entitled upon such exercise plus, in lieu of any fractional share to which the Registered Holder would otherwise be entitled, cash in an amount determined pursuant to Section 2 hereof; and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of Warrant Shares equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of this Warrant minus the number of Warrant Shares for which this Warrant was so exercised (which, in the case of an exercise pursuant to Section 2(b), shall include both the number of Warrant Shares issued to the Registered Holder pursuant to such partial exercise and the number of Warrant Shares subject to the portion of this Warrant being cancelled in payment of the Purchase Price).

### 3. Adjustments.

(a) Merger. If at any time there shall be a reorganization of the shares of the Company's capital stock (other than a combination, reclassification, recapitalization, exchange or subdivision of shares otherwise provided for herein), or a merger or consolidation of the Company with or into another person, whether or not the Company is the surviving entity (hereinafter referred to as a "Merger Event"), then, as a part of such Merger Event, lawful provision shall be made so that the Registered Holder shall thereafter be entitled to receive, upon exercise of this Warrant, and in lieu of the Warrant Stock otherwise issuable upon exercise or conversion of this Warrant, the securities or other property to which the Registered Holder would actually have been entitled to receive in such Merger Event as a holder of Warrant Stock if the Registered Holder had exercised its rights under this Warrant immediately prior to the Merger Event.

(b) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after the date on which this Warrant was first issued (or, if this Warrant was issued upon partial exercise of, or in replacement of, another warrant of like tenor, then the date on which such original warrant was first issued) (either such date being referred to

as the “Original Issue Date”) effect a subdivision of the Warrant Stock, the Purchase Price then in effect immediately before that subdivision shall be proportionately decreased. If the Company shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Warrant Stock, the Purchase Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(c) Adjustment for Certain Dividends and Distributions. In the event the Company at any time, or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of shares of Warrant Stock entitled to receive, a dividend or other distribution payable in additional shares of Warrant Stock, then and in each such event the Purchase Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Purchase Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Warrant Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Warrant Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Warrant Stock issuable in payment of such dividend or distribution;

provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Purchase Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Purchase Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions.

(d) Adjustments for Other Dividends and Distributions. In the event the Company at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of shares of Warrant Stock entitled to receive, a dividend or other distribution payable in securities of the Company (other than Warrant Stock) or in cash or other property (other than regular cash dividends paid out of earnings or earned surplus, determined in accordance with generally accepted accounting principles), then and in each such event provision shall be made so that the Registered Holder shall receive upon exercise hereof, in addition to the number of Warrant Shares issuable hereunder, the kind and amount of securities of the Company, cash or other property which the Registered Holder would have been entitled to receive had this Warrant been exercised on the date of such event and had the Registered Holder thereafter, during the period from the date of such event to and including the Exercise Date, retained any such securities receivable during such period, giving application to all adjustments called for during such period under this Section 3 with respect to the rights of the Registered Holder.

(e) Adjustment in Number of Warrant Shares. When any adjustment is required to be made in the Purchase Price pursuant to Section 3(a), (b) or (c), the number of Warrant Shares purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment of the Purchase Price pursuant to this Section 3, the Company at its expense shall, as promptly as reasonably practicable but in any event not later than 15 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to the Registered Holder a certificate setting forth such adjustment and showing in detail the facts upon which such adjustment or readjustment is based.

4. Fractional Shares. The Company shall not be required upon the exercise of this Warrant to issue any fractional shares, but shall pay in lieu thereof an amount in cash equal to the Fair Market Value of such fractional shares, as determined pursuant to Section 2 hereof.

5. Investment Representations. The Registered Holder represents and warrants to the Company as follows:

(a) The Registered Holder is purchasing and acquiring this Warrant, the Warrant Shares (upon exercise of this Warrant) and the shares of common stock issuable upon conversion of the Warrant Shares, if applicable (collectively, the "Securities"), for his or its own account for investment only, and not with a view to, or for sale in connection with, any distribution thereof in violation of the Securities Act of 1933 (the "Securities Act"), or any rule or regulation under the Securities Act.

(b) The Registered Holder has had such opportunity as he or it has deemed adequate to obtain from representatives of the Company such information as is necessary to permit him or it to evaluate the merits and risks of an investment in the Company.

(c) The Registered Holder has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Securities and to make an informed investment decision with respect to such purchase.

(d) The Registered Holder can afford a complete loss of the value of the Securities and is able to bear the economic risk of holding the Securities for an indefinite period of time. The Registered Holder is an "accredited investor" as defined in Rule 501(a) under the Securities Act.

(e) The Registered Holder understands that (i) the Securities have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act; (ii) the Securities cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 or otherwise may not be available for at least one year and even then will not be available unless

a public market then exists for the Securities, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register any of the Securities under the Securities Act.

(f) A legend substantially in the following form will be placed on the certificates representing the Warrant Shares and the shares of common stock issuable upon conversion of the Warrant Shares, if applicable:

“The shares represented by this certificate have not been registered under the Securities Act of 1933, as amended, and may not be sold, transferred or otherwise disposed of in the absence of an effective registration statement under such Act or an opinion of counsel satisfactory to the corporation to the effect that such registration is not required.”

6. Transfers. This Warrant and the Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Securities Act, or (ii) the Company first shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the Securities Act. Notwithstanding the foregoing, no registration or opinion of counsel shall be required for (i) a transfer by a Registered Holder which is an entity to a wholly owned subsidiary of such entity or an affiliate of such entity, a transfer by a Registered Holder which is a partnership to a partner of such partnership or a retired partner of such partnership or to the estate of any such partner or retired partner, or a transfer by a Registered Holder which is a limited liability company to a member of such limited liability company or a retired member or to the estate of any such member or retired member, provided that the transferee in each case agrees in writing to be subject to the terms of this Section 6, or (ii) a transfer made in accordance with Rule 144 under the Securities Act. Subject to the provisions of this Section 6, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant with a properly executed assignment (in the form of Exhibit II hereto) at the principal office of the Company.

7. Notices of Record Date, etc. In the event:

(a) the Company shall take a record of the holders of Warrant Stock for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(b) of any capital reorganization of the Company, any reclassification of the Warrant Stock, any consolidation or merger of the Company with or into another corporation (other than a consolidation or merger in which the Company is the surviving entity and the Warrant Shares are not converted into or exchanged for any other securities or property), or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company,

then, and in each such case, the Company will send or cause to be sent to the Registered Holder a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of Warrant Stock shall be entitled to exchange their shares of Warrant Stock for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

8. Reservation of Stock. The Company will at all times after a Qualified Financing reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, such number of Warrant Shares and other securities, cash and/or property, as from time to time shall be issuable upon the exercise of this Warrant.

9. Exchange or Replacement of Warrants.

(a) Upon the surrender by the Registered Holder, properly endorsed, to the Company at the principal office of the Company, the Company will, subject to the provisions of Section 6 hereof, issue and deliver to or upon the order of the Registered Holder, at the Company's expense, a new Warrant or Warrants of like tenor, in the name of the Registered Holder or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Warrant Stock (or other securities, cash and/or property) then issuable upon exercise of this Warrant.

(b) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

10. "Market Stand-Off" Agreement in Connection with Public Offering. The Registered Holder hereby agrees to be bound by the provisions of Section 8.12 of that certain Series B-1 Convertible Preferred Stock Purchase Agreement dated July 13, 2009 by and among the Company and the persons and entities listed on Schedules 1 and 2 thereto, as it may be amended hereafter.

11. Notices. All notices and other communications from the Company to the Registered Holder in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the address last furnished to the Company in writing by the Registered Holder. All notices and other communications from the Registered Holder to the Company in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the Company at its principal office. All such notices and communications shall be deemed delivered (i) two business days after being sent by certified or registered mail, return receipt requested, postage

prepaid, or (ii) one business day after being sent via a reputable nationwide overnight courier service guaranteeing next business day delivery.

12. No Rights as Stockholder. Until the exercise of this Warrant, the Registered Holder shall not have or exercise any rights by virtue hereof as a stockholder of the Company.

13. Amendment or Waiver. Any term of this Warrant may be amended or waived only by an instrument in writing signed by the Required Lenders and the Company, which expressly refers to the Warrants and modifies or amends all Warrants in the same manner. No waivers of any term, condition or provision of this Warrant, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

14. Section Headings. The section headings in this Warrant are for the convenience of the parties and in no way alter, modify, amend, limit or restrict the contractual obligations of the parties.

15. Governing Law. This Warrant will be governed by and construed in accordance with the internal laws of the State of Delaware (without reference to the conflicts of law provisions thereof).

16. Facsimile Signatures. This Warrant may be executed by facsimile signature.

*[Signature page follows.]*



CERULEAN PHARMA INC.

By: \_\_\_\_\_

Title: \_\_\_\_\_

[HOLDER]

By: \_\_\_\_\_

Title: \_\_\_\_\_

## PURCHASE FORM

To: \_\_\_\_\_

Dated: \_\_\_\_\_

The undersigned, pursuant to the provisions set forth in the attached Warrant (No. \_\_\_\_\_), hereby elects to purchase (*check applicable box*):

- Warrant Shares of Cerulean Pharma Inc. covered by such Warrant; or
- the maximum number of Warrant Shares covered by such Warrant pursuant to the cashless exercise procedure set forth in subsection 2(b).

The undersigned herewith makes payment of the full purchase price for such shares at the price per share provided for in such Warrant. Such payment takes the form of (*check applicable box or boxes*):

- \$ \_\_\_\_\_ in lawful money of the United States; and/or
- the cancellation of such portion of the attached Warrant as is exercisable for a total of \_\_\_\_\_ Warrant Shares (using a Fair Market Value of \$ \_\_\_\_\_ per share for purposes of this calculation) ; and/or
- the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(b), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(b).

Signature: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

**ASSIGNMENT FORM**

FOR VALUE RECEIVED, \_\_\_\_\_ hereby sells, assigns and transfers all of the rights of the undersigned under the attached Warrant (No. \_\_\_\_\_ ) with respect to the number of Warrant Shares of Cerulean Pharma Inc. covered thereby set forth below, unto:

Name of Assignee

Address

No. of Shares

Dated: \_\_\_\_\_

Signature: \_\_\_\_\_

THIS WARRANT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "1933 ACT"), OR ANY APPLICABLE STATE SECURITIES LAWS, AND MAY NOT BE SOLD OR TRANSFERRED UNLESS SUCH SALE OR TRANSFER IS IN ACCORDANCE WITH THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS OR SOME OTHER EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS IS AVAILABLE WITH RESPECT THERETO.

PREFERRED STOCK PURCHASE WARRANT

Shares of Series D Convertible Preferred Stock  
Subject to determination as set for the below

**CERULEAN PHARMA INC.**

Effective as of December 6, 2011

Void after December 6, 2021

**1. Issuance.** This Preferred Stock Purchase Warrant (the "*Warrant*") is issued to **LIGHTHOUSE CAPITAL PARTNERS VI, L.P.** by **CERULEAN PHARMA INC.**, a Delaware corporation (hereinafter with its successors called the "*Company*").

**2. Purchase Price; Number of Shares.**

(a) The registered holder of this Warrant (the "*Holder*"), is entitled upon surrender of this Warrant with the subscription form annexed hereto duly executed, at the principal office of the Company, to purchase from the Company, at a price per share of \$0.83 (the "*Purchase Price*"), up to a maximum of 963,856 fully paid and non-assessable shares of the Company's Series D Convertible Preferred Stock, \$0.01 par value (the "*Preferred Stock*"). Commencing on the date hereof, 421,687 (the "*Exercise Quantity*") of shares of Preferred Stock are immediately available for purchase hereunder.

(b) On the Commitment Termination Date, the Exercise Quantity shall automatically be increased by such additional number of shares as is equal to (A) 4.5% of the amount of Aggregate Advances funded under the Loan Agreement, if any, divided by (B) the Purchase Price.

In addition to other terms which may be defined herein, the following terms, as used in this Warrant, shall have the following meanings:

- (i) "Aggregate Advances" means the aggregate original dollar amount of Advances made under the Loan Agreement, whether such Advances are outstanding or prepaid, at the Commitment Termination Date.
- (ii) "Loan Agreement" means that certain Loan and Security Agreement No. 2161 dated December 6, 2011 between the Company and Lighthouse Capital Partners VI, L.P.

Any term not defined herein shall have the meaning as set forth in the Loan Agreement.

Until such time as this Warrant is exercised in full or expires, the Purchase Price and the securities issuable upon exercise of this Warrant are subject to adjustment as hereinafter provided. The person or persons in whose name or names any certificate representing shares of Preferred Stock is issued hereunder shall be deemed to have become the

holder of record of the shares represented thereby as at the close of business on the date this Warrant is exercised with respect to such shares, whether or not the transfer books of the Company shall be closed.

**3. Payment of Purchase Price.** The Purchase Price may be paid (i) in cash or by check, (ii) by the surrender by the Holder to the Company of any promissory notes or other obligations issued by the Company, with all such notes and obligations so surrendered being credited against the Purchase Price in an amount equal to the principal amount thereof plus accrued interest to the date of surrender, or (iii) by any combination of the foregoing.

**4. Net Issue Election.** The Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Preferred Stock equal to the value of this Warrant or any portion hereof by the surrender of this Warrant or such portion to the Company, with the net issue election notice annexed hereto duly executed, at the principal office of the Company. Thereupon, the Company shall issue to the Holder such number of fully paid and nonassessable shares of Preferred Stock as is computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

where: X = the number of shares of Preferred Stock to be issued to the Holder pursuant to this **Section 4**.

Y= the number of shares of Preferred Stock covered by this Warrant in respect of which the net issue election is made pursuant to this **Section 4**.

A= the Fair Market Value (defined below) of one share of Preferred Stock, as determined at the time the net issue election is made pursuant to this **Section 4**.

B= the Purchase Price in effect under this Warrant at the time the net issue election is made pursuant to this **Section 4**.

“Fair Market Value” of a share of Preferred Stock (or a fully paid and non-assessable share of the Company’s common stock, \$0.0001 par value (the “Common Stock”) if all the outstanding shares of Preferred Stock have been converted into Common Stock) as of the date that the net issue election is made (the “Determination Date”) shall mean:

(i) If the net issue election is made in connection with and contingent upon the closing of the sale of the Company’s Common Stock to the public in a public offering pursuant to a Registration Statement under the 1933 Act (a “Public Offering”), and if the Company’s Registration Statement relating to such Public Offering (“Registration Statement”) has been declared effective by the Securities and Exchange Commission, then the initial “Price to Public” specified in the final prospectus with respect to such offering multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible.

(ii) If the net issue election is not made in connection with and contingent upon a Public Offering, then as follows:

(a) If traded on a national securities exchange, the fair market value per share of the Common Stock shall be deemed to be the average of the closing or last reported sale prices of the Common Stock on such exchange over the five trading day period ending five trading days prior to the Determination Date, and the fair market value per share of the Preferred Stock shall be deemed to be such fair market value per share of the Common Stock multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible;

(b) If otherwise traded in an over-the-counter market, the fair market value per share of the Common Stock shall be deemed to be the average of the closing ask prices of the Common Stock over

the five trading day period ending five trading days prior to the Determination Date, and the fair market value per share of the Preferred Stock shall be deemed to be such fair market value per share of the Common Stock multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible; and

(c) If there is no public market for the Common Stock, then fair market value shall be determined in good faith by the Company's Board of Directors.

**5. Partial Exercise.** This Warrant may be exercised in part, and the Holder shall be entitled to receive a new warrant, which shall be dated as of the date of this Warrant, covering the number of shares in respect of which this Warrant shall not have been exercised.

**6. Fractional Shares.** In no event shall any fractional share of Preferred Stock be issued upon any exercise of this Warrant. If, upon exercise of this Warrant in its entirety, the Holder would, except as provided in this Section 6, be entitled to receive a fractional share of Preferred Stock, then the Company shall pay the value thereof to the Holder in cash on the basis of the Fair Market Value per share of Preferred Stock, as determined pursuant to **Section 4** above (for purposes of such determination, references in **Section 4** to "net issue election" shall be deemed to refer to the "exercise" of this Warrant).

**7. Expiration Date; Automatic Exercise.** This Warrant shall expire at the close of business on December 6, 2021, and shall be void thereafter (the "Expiration Date"). Notwithstanding the term of this Warrant fixed pursuant to this **Section 7**, and provided Holder has received advance written notice of at least twenty (20) days and has not earlier exercised this Warrant, and provided this Warrant has not been assumed by the successor entity (or parent thereof), upon the consummation of a Merger (as defined below), this Warrant shall automatically be exercised in full pursuant to **Section 4** hereof, without any action by Holder. "Merger" means: (i) a sale of all or substantially all of the Company's assets to an Unaffiliated Entity (as defined below), or (ii) the merger, consolidation or acquisition of the Company with, into or by an Unaffiliated Entity (other than a merger or consolidation for the principal purpose of changing the domicile of the Company or a bona fide round of preferred stock equity financing), that results in the transfer of fifty percent (50%) or more of the outstanding voting power of the Company. "Unaffiliated Entity" means any entity that is owned or controlled by parties who own less than twenty percent (20%) of the combined voting power of the voting securities of the Company immediately prior to such merger, consolidation or acquisition. Notwithstanding the foregoing, in the event that any outstanding warrants to purchase equity securities of the Company are assumed by the successor entity of a Merger (or parent thereof), this Warrant shall also be similarly assumed. The Company agrees to promptly give the Holder written notice of any proposed Merger and written notice of termination of any proposed Merger. Notwithstanding anything to the contrary in this Warrant, the Holder may rescind any exercise of its purchase rights after a notice of termination of the proposed Merger if the exercise of this Warrant occurred after the Company notified the Holder that the Merger was proposed or if the exercise was otherwise precipitated by such proposed Merger, provided, however that such rescission right must be exercised within thirty (30) days of receipt of such written notice of termination of the proposed Merger. In the event of such rescission, this Warrant will continue to be exercisable on the same terms and conditions as prior to the exercise.

**8. Reserved Shares; Valid Issuance.** The Company covenants that it will at all times from and after the date hereof reserve and keep available such number of its authorized shares of Preferred Stock and Common Stock free from all preemptive or similar rights therein, as will be sufficient to permit, respectively, the exercise of this Warrant in full and the conversion into shares of Common Stock of all shares of Preferred Stock issuable upon such exercise. The Company further covenants that such shares as may be issued pursuant to such exercise and/or conversion will, upon issuance, be duly and validly issued, fully paid and non-assessable and free from all taxes, liens and charges with respect to the issuance thereof.

**9. Stock Splits and Dividends.** If after the date hereof the Company shall subdivide the Preferred Stock, by split-up or otherwise, or combine the Preferred Stock, or issue additional shares of Preferred Stock in payment of a stock dividend on the Preferred Stock, the number of shares of Preferred Stock issuable on the exercise of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or

proportionately decreased in the case of a combination, and the Purchase Price shall forthwith be proportionately decreased in the case of a subdivision or stock dividend, or proportionately increased in the case of a combination.

**10. Adjustments for Diluting Issuances.** The other anti-dilution rights applicable to the Preferred Stock are set forth in the Amended and Restated Certificate of Incorporation, as amended from time to time (the "*Certificate*"), a true and complete copy of which, in its current form, is attached hereto as *Exhibit A*. Such rights shall not be restated, amended or modified in any manner without the Holder's prior written consent if the effect of such action would be more adverse to the Holder than, and substantially dissimilar to, the effect of such action on the other holders of the Preferred Stock. The Company shall promptly provide the Holder hereof with any restatement, amendment or modification to the Articles promptly after the same has been made.

**11. Mergers and Reclassifications.** Subject to **Section 7**, if after the date hereof the Company shall enter into any Reorganization (as hereinafter defined), then, as a condition of such Reorganization, unless the Company shall have complied with **Section 7**, lawful provisions shall be made, and duly executed documents evidencing the same from the Company or its successor shall be delivered to the Holder, so that the Holder shall thereafter have the right to purchase, at a total price not to exceed that payable upon the exercise of this Warrant in full, the kind and amount of shares of stock and other securities and property receivable upon such Reorganization by a holder of the number of shares of Preferred Stock which might have been purchased by the Holder immediately prior to such Reorganization, and in any such case appropriate provisions shall be made with respect to the rights and interest of the Holder to the end that the provisions hereof (including without limitation, provisions for the adjustment of the Purchase Price and the number of shares issuable hereunder and the provisions relating to the net issue election) shall thereafter be applicable in relation to any shares of stock or other securities and property thereafter deliverable upon exercise hereof. For the purposes of this **Section 11**, the term "*Reorganization*" shall mean any reclassification, capital reorganization or change of the Preferred Stock (other than as a result of a subdivision, combination or stock dividend provided for in **Section 9** hereof), or any consolidation of the Company with, or merger of the Company into, another corporation or other business organization (other than a merger in which the Company is the surviving corporation and which does not result in any reclassification or change of the outstanding Preferred Stock), or any sale or conveyance to another corporation or other business organization of all or substantially all of the assets of the Company.

**12. Certificate of Adjustment.** Whenever the Purchase Price is adjusted, as herein provided, the Company shall promptly deliver to the Holder a certificate of the Company's chief financial officer setting forth the Purchase Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

**13. Notices of Record Date, Etc.** In the event of:

(a) any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, or any right to subscribe for, purchase, sell or otherwise acquire or dispose of any shares of stock of any class or any other securities or property, or to receive any other right;

(b) any reclassification of the Common Stock, Preferred Stock, or any other Series of stock of the Company, capital reorganization of the Company, consolidation or merger involving the Company, or sale or conveyance of all or substantially all of its assets; or

(c) any voluntary or involuntary dissolution, liquidation or winding-up of the Company;

then in each such event the Company will provide or cause to be provided to the Holder a written notice thereof. Such notice shall be provided at least twenty (20) days prior to the date specified in such notice on which any such action is to be taken.

**14. Representations, Warranties and Covenants.** This Warrant is issued and delivered by the Company and accepted by each Holder on the basis of the following representations, warranties and covenants made by the Company:

(a) The Company has all necessary authority to issue, execute and deliver this Warrant and to perform its obligations hereunder. This Warrant has been duly authorized issued, executed and delivered by the Company and is the valid and binding obligation of the Company, enforceable in accordance with its terms.

(b) The shares of Preferred Stock issuable upon the exercise of this Warrant have been duly authorized and reserved for issuance by the Company and, when issued in accordance with the terms hereof, will be validly issued, fully paid and nonassessable.

(c) The issuance, execution and delivery of this Warrant do not, and the issuance of the shares of Preferred Stock upon the exercise of this Warrant in accordance with the terms hereof will not, (i) violate or contravene the Company's Certificate or by-laws, or any law, statute, regulation, rule, judgment or order applicable to the Company, (ii) violate, contravene or result in a breach or default under any contract, agreement or instrument to which the Company is a party or by which the Company or any of its assets are bound or (iii) require the consent or approval of or the filing of any notice or registration with any person or entity, other than filings pursuant to Regulation D promulgated under the 1933 Act.

(d) As long as this Warrant is, or any shares of Preferred Stock issued upon exercise of this Warrant or any shares of Common Stock issued upon conversion of such shares of Preferred Stock are, issued and outstanding (but in no event after a Public Offering), the Company will provide to the Holder the financial and other information described in the Loan Agreement.

(e) As of the date hereof, the authorized capital stock of the Company consists of (i) 115,000,000 shares of Common Stock, of which 8,831,480 shares are issued and outstanding and 963,856 shares are reserved for issuance upon the exercise of this Warrant with respect to Common Stock and the conversion of the Preferred Stock into Common Stock if this Warrant is exercised with respect to Preferred Stock, (ii) 2,500,000 shares of Seed Convertible Preferred Stock, all of which are issued and outstanding shares, (iii) 9,307,692 shares of Series A Convertible Preferred Stock, all of which are issued and outstanding shares, (iv) 4,077,500 shares of Series B Convertible Preferred Stock, 4,062,500 of which are issued and outstanding shares, (v) 5,000,000 shares of Series B-1 Preferred Stock, all of which are issued and outstanding shares; (vi) 33,310,787 shares of Series C Preferred Stock, of which 32,432,417 are issued and outstanding shares; and (vii) 19,036,143 shares of Series D Preferred Stock, of which 18,072,287 are issued and outstanding shares, Attached hereto as **Exhibit B** is a capitalization table summarizing the capitalization of the Company. Upon request, not more than once per calendar quarter, the Company will provide Holder with a current capitalization table indicating changes, if any, to the number of outstanding shares of Common Stock, Preferred Stock, and any other series of stock outstanding, provided, however, that the Company shall not be considered in default of this Warrant unless the Holder has not received such capitalization table within ten (10) days of such request.

**15. Registration Rights.** The Company represents and warrants that it has granted to Holder certain registration rights under Section 8 that certain Series D Convertible Preferred Stock Purchase Agreement, dated as of December 2, 2011, among the Company and the Purchasers and Holders party thereto (the "**Stock Purchase Agreement**"), that the Holder hereunder shall be deemed a "Holder" for purposes of Section 8 of the Stock Purchase Agreement and as such that the shares of Common Stock issuable upon conversion of the shares of Preferred Stock issuable upon exercise of this Warrant, or issuable upon exercise of this Warrant (in the event this Warrant becomes exercisable for Common Stock), are deemed to be "Registrable Securities" for the purposes of Section 8 Stock Purchase Agreement; provided, however, that in no event shall Holder be permitted to be an Initiating Holder (as defined in the Stock Purchase Agreement) under Section 8.2 of the Stock Purchase Agreement. The Company shall not take, nor shall it permit to be taken, any action that would diminish, frustrate or limit the rights of Holder under Section 8 of the Stock Purchase Agreement in any manner in which the other "Holders" under the Stock Purchase Agreement are not likewise adversely affected.

**16. Amendment.** The terms of this Warrant may be amended, modified or waived only with the written consent of the Holder and the Company.



**17. Representations and Covenants of the Holder.** This Warrant has been entered into by the Company in reliance upon the following representations and covenants of the Holder, which by its execution hereof the Holder hereby confirms:

(a) **Investment Purpose.** This Warrant and the securities issuable upon exercise of the Holder's rights contained herein will be acquired for investment and not with a view to the sale or distribution of any part thereof, and the Holder has no present intention of selling or engaging in any public distribution of the same except pursuant to a registration or exemption.

(b) **Accredited Investor.** Holder is an "accredited investor" within the meaning of Regulation D promulgated under the 1933 Act, as presently in effect.

(c) **Private Issue.** The Holder understands (i) that the securities issuable upon exercise of the Holder's rights contained herein is not registered under the 1933 Act or qualified under applicable state securities laws on the ground that the issuance contemplated by this Warrant will be exempt from the registration and qualification requirements thereof, and (ii) that the Company's reliance on such exemption is predicated on the representations set forth in this Section 17.

(d) **Financial Risk.** The Holder has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investment and has the ability to bear the economic risks of its investment.

#### **18. Notices, Transfers, Etc.**

(a) Any notice or written communication required or permitted to be given to the Holder may be given by certified mail or delivered by reputable overnight courier or by hand to the Holder at the address most recently provided by the Holder to the Company.

(b) Prior to a Public Offering, neither this Warrant, nor the shares of capital stock issuable upon exercise of this Warrant (or upon conversion of the shares of Preferred Stock issuable upon exercise of this Warrant) shall be sold or transferred unless the Company first shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the 1933 Act. The Company shall not require a legal opinion in connection with any transfer by Holder to an affiliate of Holder, provided that such transferee is an "accredited investor" within the meaning of Rule 501 of Regulation D, as in effect under the 1933 Act. Notwithstanding the foregoing, neither this Warrant nor the shares of capital stock issuable upon exercise of this Warrant (or upon conversion of the shares of Preferred Stock issuable upon exercise of this Warrant) may be transferred to a competitor of the Company (as determined in good faith by the Company's Board of Directors) prior to a Public Offering. Upon surrender of this Warrant to the Company, together with the assignment notice annexed hereto duly executed, for transfer of this Warrant as an entirety by the Holder, the Company shall issue a new warrant of the same denomination to the assignee. Upon surrender of this Warrant to the Company, together with the assignment hereof properly endorsed, by the Holder for transfer with respect to a portion of the shares of Preferred Stock purchasable hereunder, the Company shall issue a new warrant to the assignee, in such denomination as shall be requested by the Holder hereof, and shall issue to such Holder a new warrant covering the number of shares in respect of which this Warrant shall not have been transferred.

(c) In case this Warrant shall be mutilated, lost, stolen or destroyed, the Company shall issue a new warrant of like tenor and denomination and deliver the same (i) in exchange and substitution for and upon surrender and cancellation of any mutilated Warrant, or (ii) in lieu of any Warrant lost, stolen or destroyed, upon receipt of an affidavit of the Holder or other evidence reasonably satisfactory to the Company of the loss, theft or destruction of such Warrant

**19. No Impairment.** The Company will not, without the prior written consent of the Holder, by amendment of its Certificate or through any reclassification, capital reorganization, consolidation, merger, sale or

conveyance of assets, dissolution, liquidation, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance of performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder.

**20. Governing Law.** The provisions and terms of this Warrant shall be governed by and construed in accordance with the internal laws of the State of California without giving effect to its principles regarding conflicts of laws.

**21. Successors and Assigns.** This Warrant shall be binding upon the Company's successors and assigns and shall inure to the benefit of the Holder's permitted successors, legal representatives and permitted assigns.

**22. Business Days.** If the last or appointed day for the taking of any action required or the expiration of any rights granted herein shall be a Saturday or Sunday or a legal holiday in California, then such action may be taken or right may be exercised on the next succeeding day which is not a Saturday or Sunday or such a legal holiday.

**23. Conversion.** If all of the outstanding shares of Preferred Stock are converted into Common Stock, effective upon such conversion, this Warrant shall change from the right to purchase shares of Preferred Stock to the right to purchase shares of Common Stock, and the Holder shall thereupon have the right to purchase, at a total price equal to that payable upon the exercise of this Warrant in full, the number of shares of Common Stock which would have been receivable by the Holder upon the exercise of this Warrant for shares of Preferred Stock immediately prior to such conversion of such shares of Preferred Stock into shares of Common Stock, and in such event appropriate provisions shall be made with respect to the rights and interest of the Holder to the end that the provisions hereof (including, without limitation, the provisions for the adjustment of the Purchase Price and of the number of shares purchasable upon exercise of this Warrant and the provisions relating to the net issue election) shall thereafter be applicable to any shares of Common Stock deliverable upon the exercise hereof, and all references in this Warrant to "Preferred Stock" shall thereafter be deemed to refer to "Common Stock."

**24. Value.** The Company and the Holder agree that the value of this Warrant on the date of grant is \$100.

**25. Legends.** Each certificate representing shares issuable upon exercise of this Warrant shall bear a legend substantially in the form set forth in Section 3.8 of the Series D Convertible Preferred Stock Purchase Agreement dated December 2, 2011.

**26. Market Stand-Off Agreement.** The Holder hereby agrees that, during a period of 180 days following the effective date of a registration statement of the Company filed under the 1933 Act relating to the initial Public Offering of the Company, plus up to an additional 34 days to the extent requested by the managing underwriter(s) for such offering in order to address Rule 2711(f) of the National Association of Securities Dealers, Inc. or any similar successor provision (such period, the "Lock-Up Period"), such Holder shall not, to the extent requested by the Company and such managing underwriter(s), directly or indirectly sell, offer to sell, contract to sell (including any short sale), grant any option to purchase, or otherwise transfer or dispose of (other than to donees who agree to be similarly bound) any securities of the Company held by it at any time during such period except Common Stock included in such registration; provided, however, that the Holder shall not be required to enter into such an agreement unless all officers and directors of the Company and stockholders holding in excess of one percent (1%) of the outstanding Common Stock (treating all Preferred Stock on an as-converted to Common Stock basis) enter into similar agreements.

**27. No Rights as a Stockholder.** Until the exercise of this Warrant, the Holder shall not have or exercise any rights by virtue hereof as a stockholder of the Company.

**CERULEAN PHARMA INC.**

By: /s/ Karen L. Roberts

Name: Karen L. Roberts

Title: SVP Finance & Admin

---

**Subscription**

To: \_\_\_\_\_

Date: \_\_\_\_\_

The undersigned hereby subscribes for \_\_\_\_\_ shares of Preferred Stock covered by this Warrant. The certificate(s) for such shares shall be issued in the name of the undersigned or as otherwise indicated below:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name for Registration

\_\_\_\_\_  
Mailing Address

**Net Issue Election Notice**

To: \_\_\_\_\_

Date: \_\_\_\_\_

The undersigned hereby elects under **Section 4** to surrender the right to purchase shares of Preferred Stock pursuant to this Warrant. The certificate(s) for such shares issuable upon such net issue election shall be issued in the name of the undersigned or as otherwise indicated below:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name for Registration

\_\_\_\_\_  
Mailing Address

**Assignment**

For value received \_\_\_\_\_ hereby sells, assigns and transfers unto

\_\_\_\_\_  
[Please print or typewrite name and address of Assignee]

\_\_\_\_\_  
the within Warrant, and does hereby irrevocably constitute and appoint \_\_\_\_\_ its attorney to transfer the within Warrant on the books of the within named Company with full power of substitution on the premises.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name for Registration

In the Presence of:  
\_\_\_\_\_

**AMENDMENT NO. 01**

Dated October 2, 2012

TO

that certain Preferred Stock Purchase Warrant, effective as of December 6, 2011 (“*Warrant*”)  
issued to **Lighthouse Capital Partners VI, L.P.** (“*Holder*”)  
by **Cerulean Pharma Inc.** (“*Company*”).

Without limiting or amending any other provisions of the Warrant, Holder and Company hereby agree to the following:

1. The first paragraph of **Section 2(b)** shall be deleted in its entirety and replaced with the following:

“(b) In connection with Advances made under the Loan Agreement after the effective date of the Warrant, the Exercise Quantity has been increased by such number of shares as is equal to (A) 4.5% of the amount of Aggregate Advances funded under the Loan Agreement, divided by (B) the Purchase Price. For the avoidance of doubt, on June 2, 2012, the Exercise Quantity was increased to 692,771 shares of Preferred Stock, and on October 2, 2012 (*date of Amendment*), the Exercise Quantity was increased to 963,856 shares of Preferred Stock.”

2. Except as specifically set forth herein, the Warrant remains unmodified and unchanged.

3. This Amendment may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original, and all of which together shall constitute one and the same document.

4. The provisions and terms of this Amendment shall be governed by and construed in accordance with the internal laws of the State of California without giving effect to its principles regarding conflicts of law.

5. All capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Warrant.

*[Remainder of Page Intentionally Left Blank.]*

**COMPANY:**

**Cerulean Pharma Inc.**

By: /s/ Karen L. Roberts  
Name: Karen L. Roberts  
Title: SVP Finance + Admin.

**HOLDER:**

**Lighthouse capital partners VI, L.P.**

By: **Lighthouse Management  
Partners VI, L.L.C.**, its general partner  
By: /s/ Ryan Turner  
Name: Ryan Turner  
Title: Managing Director

*[Signature Page to Amendment No. 1 to Preferred Stock Purchase Warrant]*



January 4, 2012

Christopher Guiffre

Dear Chris

It is with great pleasure that I offer you employment with Cerulean Pharma Inc. ("Cerulean" or "the Company"). Your initial position will be Senior Vice President, Chief Business Officer, reporting directly to me. In addition to performing duties and responsibilities associated with the position above, from time-to-time, the Company may assign you other duties and responsibilities consistent with such position. Your effective date of hire as a regular full-time employee will be January 17, 2012.

You shall be paid on a salary basis at an annual rate of \$280,000, to be paid in accordance with Cerulean's standard payroll practices. You will also be eligible for a discretionary performance-based bonus with a target of 25% of your annual salary, subject to criteria as determined by the Compensation Committee of the Board of Directors of the Company.

In addition to eleven (11) Company-paid holidays and up to two (2) personal days, you will receive a total of fifteen (25) days of earned time off for each year of employment which is earned pro rata on a semi-monthly basis.

As an incentive for you to share in the long-term growth of Cerulean, it is our intention to recommend to the Board of Directors that you be granted an incentive stock option to purchase 780,000 shares of Cerulean's Common Stock at an exercise price equal to the fair market value (as determined by the Board of Directors) on the date of the grant. The options shall vest over a four-year period, with 25% vesting twelve (12) months from your first day of employment with Cerulean, and an additional 2.083% vesting in equal monthly portions on the last day of the month over the following thirty-six (36) months, and shall otherwise be subject to the provisions of Cerulean's 2007 Stock Incentive Plan.

In addition, we intend to recommend to the Board of Directors that you be granted a stock option (the "Performance Option") to purchase 750,000 shares of common stock with an exercise price equal to the fair market value (as determined by the Board of Directors) on the date of grant and the following vesting:

1. Upon the closing of a transformative business development transaction, as determined by the Board, the Performance Option will begin to vest with respect to 400,000 of the shares and shall vest with respect to such shares in equal monthly installments for the subsequent 24 months; and

2. In the event of a change in control with upfront consideration equal to \$3.00 per then-outstanding share of common stock (on an as converted to common stock basis and as adjusted for stock splits and similar recapitalization and reorganization events), the Performance Option shall vest as to 350,000 of the shares, provided that, if such event occurs prior to the second anniversary of the option grant date, the Performance Option shall immediately vest in full.

As a regular full-time employee you are eligible to participate in the benefit plans which Cerulean offers to its employees, including the 401K Retirement Plan with a Company match of up to 4%. Descriptions of the benefit plans currently being offered are available upon request. These plans may, from time-to-time, be amended or terminated with or without prior notice.

In addition, in the event that the Company adopts a change of control severance plan, you will be eligible to participate to the same extent as similarly situated employees.

Your employment at all times will be at will, meaning that you are not being offered employment for a definite period and that either you or Cerulean may terminate the employment relationship at any time for any reason.

As a condition of your at-will employment, you will be required to sign the attached Non-Disclosure, Non-Competition and Assignment of Intellectual Property Agreement. We understand that you currently are not subject to any agreements which restrict your activities for Cerulean. By accepting this offer below, you represent that you are not subject to any agreements which might restrict your conduct at Cerulean and that you understand that if you become aware at any time during your employment with Cerulean that you are subject to any agreements which might restrict your conduct at Cerulean, you are required to immediately inform the Company of the existence of such agreements or your employment by the Company shall be subject to immediate termination.

In addition, the Immigration Reform and Control Act requires employers to verify employment eligibility and identity of new employees. On your first day of employment, you must provide us with appropriate documents to establish your eligibility to work in the United States (e.g., Social Security card, drivers' license, or United States passport). We will not be able to employ you if you fail to comply with this requirement.

Cerulean maintains a smoke-free, drug-free workplace policy and supports equal employment opportunities for all of its employees.

This letter, together with the Non-Disclosure, Non-Competition and Assignment of Intellectual Property Agreement (the "IP Agreement"), will constitute the entire agreement as to your employment relationship with the Company and will supersede any prior agreements or understandings between you and the Company, whether in writing or oral, including the Confidentiality Agreement dated February 15, 2011 (the "CDA"); provided that the CDA shall remain in full force and effect with respect Confidential Information disclosed to you by the Company prior to your execution of the IP Agreement.

This offer will expire at noon on January 12, 2012. Please indicate your acceptance of this offer and the terms and conditions thereof by signing and returning to the Company this letter and the IP Agreement.

We are looking forward to you joining the Cerulean team. We are confident that you will find a great deal of challenge, satisfaction, and opportunity for personal and professional growth at the Company.

Sincerely,

**CERULEAN PHARMA INC.**

/s/ Jean M. Silveri

Jean M. Silveri

Senior Vice President, General Counsel

Accepted by: /s/ Christopher Guiffre  
Christopher Guiffre

Date: 1/5/12

April 23, 2011

Edward Garmey, M.D.

Dear Edward,

It is with great pleasure that I offer you employment with Cerulean Pharma Inc. ("Cerulean" or "the Company"). Your initial position will be Senior Vice President, Chief Medical Officer, reporting directly to me. In addition to performing duties and responsibilities associated with the position above, from time-to-time, the Company may assign you other duties and responsibilities consistent with such position. Your effective date of hire as a regular full-time employee will be May 2, 2011.

You shall be paid on a salary basis at an annual rate of \$290,000, to be paid in accordance with Cerulean's standard payroll practices. You will also be eligible for a discretionary performance-based bonus with a target of 25% of your annual salary, subject to criteria as determined by the Compensation Committee of the Board of Directors of the Company.

In addition to eleven (11) Company-paid holidays and up to two (2) personal days, you will receive a total of fifteen (15) days of earned time off for each year of employment which is earned pro rata on a semi-monthly basis.

As an incentive for you to share in the long-term growth of Cerulean, it is our intention to recommend to the Board of Directors that you be granted an incentive stock option to purchase 500,000 shares of Cerulean's Common Stock at an exercise price equal to the fair market value (as determined by the Board of Directors) on the date of the grant (the "New Hire Option"). The New Hire Option shall vest over a four-year period, with 25% vesting twelve (12) months from your first day of employment with Cerulean, and an additional 2.083% vesting in equal monthly portions on the last day of the month over the following thirty-six (36) months, and shall otherwise be subject to the provisions of Cerulean's 2007 Stock Incentive Plan. Notwithstanding the foregoing or any provision to the contrary in the applicable option agreement, if a Change in Control Event (as defined on [Exhibit A](#) attached hereto) occurs within one year of your first day of employment, rather than vesting as to 25% on the first anniversary of your first day of employment, your New Hire Option will vest as to 25% upon the occurrence of such Change in Control Event and will then vest as to an additional 2.083% at the end of each month thereafter pursuant to the terms of the option agreement.

As a regular full-time employee you are eligible to participate in the benefit plans which Cerulean offers to its employees, including the 401K Retirement Plan with a Company match of up to 4%. Descriptions of the benefit plans currently being offered are available upon request. These plans may, from time-to-time, be amended or terminated with or without prior notice.

Your employment at all times will be at will, meaning that you are not being offered employment for a definite period and that either you or Cerulean may terminate the employment relationship at any time for any reason.

As a condition of your at-will employment, you will be required to sign the attached Non-Disclosure, Non-Competition and Assignment of Intellectual Property Agreement. We understand that you currently are not subject to any agreements which restrict your activities for Cerulean. By accepting this offer below, you represent that you are not subject to any agreements which might restrict your conduct at Cerulean and that you understand that if you become aware at any time during your employment with Cerulean that you are subject to any agreements which might restrict your conduct at Cerulean, you are required to immediately inform the Company of the existence of such agreements or your employment by the Company shall be subject to immediate termination.

In addition, the Immigration Reform and Control Act requires employers to verify employment eligibility and identity of new employees. On your first day of employment, you must provide us with appropriate documents to establish your eligibility to work in the United States (e.g., Social Security card, drivers' license, or United States passport). We will not be able to employ you if you fail to comply with this requirement.

Cerulean maintains a smoke-free, drug-free workplace policy and supports equal employment opportunities for all of its employees.

This letter, together with the Non-Disclosure, Non-Competition and Assignment of Intellectual Property Agreement (the "IP Agreement"), will constitute the entire agreement as to your employment relationship with the Company and will supersede any prior agreements or understandings between you and the Company, whether in writing or oral, including the Confidentiality Agreement dated February 15, 2011 (the "CDA"); provided that the CDA shall remain in full force and effect with respect Confidential Information disclosed to you by the Company prior to your execution of the IP Agreement.

This offer will expire at 5:00 p.m. on Monday, April 25, 2011. Please indicate your acceptance of this offer and the terms and conditions thereof by signing and returning to the Company this letter and the IP Agreement.

We are looking forward to you joining the Cerulean team. We are confident that you will find a great deal of challenge, satisfaction, and opportunity for personal and professional growth at the Company.

Sincerely,

**CERULEAN PHARMA INC.**

/s/ Jean M. Silveri

Jean M. Silveri

Senior Vice President, General Counsel

Accepted by: /s/ Edward Garmey  
Edward Garmey

Date: 25 April 2011

**EXHIBIT A**

**Definition of Change in Control Event**

Change in Control Event shall mean:

- (A) the acquisition by an individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934 (the “Exchange Act”)) (a “Person”) of beneficial ownership of any capital stock of the Company if, after such acquisition, such Person beneficially owns (within the meaning of Rule 13d-3 promulgated under the Exchange Act) 50% or more of either (x) the then-outstanding shares of common stock of the Company (the “Outstanding Company Common Stock”) or (y) the combined voting power of the then-outstanding securities of the Company entitled to vote generally in the election of directors (the “Outstanding Company Voting Securities”); provided, however, that for purposes of this subsection (A), the following acquisitions shall not constitute a Change in Control Event: (1) any acquisition directly from the Company or (2) any acquisition by any corporation pursuant to a Business Combination (as defined below) which complies with clauses (x) and (y) of subsection (C) of this definition; or
- (B) such time as the Continuing Directors (as defined below) do not constitute a majority of the Board (or, if applicable, the Board of Directors of a successor corporation to the Company), where the term “Continuing Director” means at any date a member of the Board (x) who was a member of the Board on the date of this Agreement or (y) who was nominated or elected subsequent to such date by at least a majority of the directors who were Continuing Directors at the time of such nomination or election or whose election to the Board was recommended or endorsed by at least a majority of the directors who were Continuing Directors at the time of such nomination or election; provided, however, that there shall be excluded from this clause (y) any individual whose initial assumption of office occurred as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents, by or on behalf of a person other than the Board; or
- (C) the consummation of a merger, consolidation, reorganization, recapitalization or share exchange involving the Company or a sale or other disposition of all or substantially all of the assets of the Company (a “Business Combination”), unless, immediately following such Business Combination, each of the following two conditions is satisfied: (x) all or substantially all of the individuals and entities who were the beneficial owners of the Outstanding Company Common Stock and Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the then-outstanding shares of common stock and the combined voting power of the then-outstanding securities entitled to vote generally in the election of directors, respectively, of the resulting or acquiring corporation in such Business

Combination (which shall include, without limitation, a corporation which as a result of such transaction owns the Company or substantially all of the Company's assets either directly or through one or more subsidiaries) (such resulting or acquiring corporation is referred to herein as the "Acquiring Corporation") in substantially the same proportions as their ownership of the Outstanding Company Common Stock and Outstanding Company Voting Securities, respectively, immediately prior to such Business Combination and (y) no Person (excluding any employee benefit plan (or related trust) maintained or sponsored by the Company or by the Acquiring Corporation) beneficially owns, directly or indirectly, 50% or more of the then-outstanding shares of common stock of the Acquiring Corporation, or of the combined voting power of the then-outstanding securities of such corporation entitled to vote generally in the election of directors (except to the extent that such ownership existed prior to the Business Combination); or

(D) the liquidation or dissolution of the Company.

Cerulean Pharma Inc.  
840 Memorial Drive  
Cambridge, MA 02139

March 31, 2013

Dear Oliver:

On behalf of Cerulean Pharma Inc. (the "Company"), I am pleased to set forth below and in the attached documents the vesting terms and conditions of the options granted to you by the Company's Board of Directors on December 27, 2012 and February 7, 2013 (together, the "2012 Option Award"). Your 2012 Option Award agreement (the "Option Agreement") is attached hereto as Attachment 1. A cash bonus award (the "Contingent Consideration Award"), which shall be payable to you only if the consideration payable in connection with a Change of Control (as such term is defined in the award documents attached hereto) of the Company is not payable in its entirety upon the closing of such Change of Control, is attached hereto as Attachment 2. Together, we refer to the 2012 Option Award and the Contingent Consideration Award as the "Award".

In addition, by signing below under "Participant's Acceptance" and as a condition to the Company's issuance of the 2012 Option Award, you hereby agree and acknowledge that, notwithstanding anything to the contrary in the certain Employment Agreement dated April 8, 2009 between you and the Company (the "Employment Agreement"), the Performance Vested Shares (as defined in the Option Agreement) shall not vest pursuant to Section 7(b) of the Employment Agreement.

IN WITNESS WHEREOF, the Company has caused this Award to be executed under its corporate seal by its duly authorized officer. This Award shall take effect as a sealed instrument.

**CERULEAN PHARMA INC.**

By: /s/ Jean M. Silveri

Name: Jean M. Silveri

Title: General Counsel



PARTICIPANT'S ACCEPTANCE

The undersigned hereby accepts the foregoing Award, which is constituted of the 2012 Option Award and the Contingent Consideration Award, and agrees to the terms and conditions thereof. The undersigned hereby acknowledges receipt of a copy of the Company's 2007 Stock Incentive Plan.

PARTICIPANT:

/s/ Oliver Fetzer  
Dr. Oliver Fetzer

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## Attachment 1

Cerulean Pharma Inc.

### Incentive Stock Option Agreement Granted Under 2007 Stock Incentive Plan

#### 1. Grant of Option.

This agreement evidences the grant by Cerulean Pharma Inc., a Delaware corporation (the “Company” or “Cerulean”), (a) on December 27, 2012 (the “First Grant Date”) to Dr. Oliver Fetzter, an employee of the Company (the “Participant”), of an option to purchase, in whole or in part, on the terms provided herein and in the Company’s 2007 Stock Incentive Plan, as amended (the “Plan”), a total of 1,299,653 shares (the “First Option Shares”) of common stock, \$0.0001 par value per share, of the Company (“Common Stock”) at \$0.27 per Share and (b) on February 7, 2013 to the Participant of an option to purchase, in whole or in part, on the terms provided herein and in the Plan, a total of 775,977 (the “Second Option Shares” and, together with the First Option Shares, the “Shares”) of Common Stock at \$0.27 per Share. Unless earlier terminated, this option shall expire at 5:00 p.m., Eastern time, on December 26, 2022 with respect to the First Option Shares (the “First Final Exercise Date”) and on February 6, 2023 with respect to the Second Option Shares (the “Second Final Exercise Date”).

It is intended that the option evidenced by this agreement shall be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the “Code”) to the maximum extent permitted by law. Except as otherwise indicated by the context, the term “Participant”, as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

#### 2. Vesting Schedule.

This option will become exercisable (“vest”) as follows:

(a) Four Hundred Eighty Six Thousand Four Hundred Seventy Five (486,475) of the Shares (the “Time-Vested Shares”) shall vest as follows: 1/4<sup>th</sup> of the Time-Vested Shares shall vest on December 31, 2013 and an additional 1/48<sup>th</sup> of the Time-Vested Shares shall vest at the end of each calendar month thereafter until December 31, 2016, provided in each case that the Participant continues to be an Eligible Participant (as defined below) on each applicable vesting date]; provided, further, that notwithstanding anything to the contrary in this Section 2(a) or elsewhere in this Agreement, in the event the Participant’s employment with the Company terminates due to the circumstances set forth in Section 7 of the Employment Agreement dated April 8, 2009 between the Participant and the Company (the “Employment Agreement”), this option shall vest as to all 486,475 Time-Vested Shares covered by this Section 2(a) immediately prior to the effectiveness of such termination]. All of the Time-Vesting Shares vesting pursuant to this Section 2(a) shall be from the First Option Shares and accordingly the right to purchase

such shares shall expire on the First Final Exercise Date, or earlier pursuant to the terms of this Agreement and the Plan.

(b) The remainder of the Shares subject to this option (One Million Five Hundred Eighty Nine Thousand One Hundred Fifty Five (1,589,155) Shares (the "Performance-Vested Shares")) shall vest either: (i) immediately prior to a Change of Control (as defined below), in accordance with Schedule 1 hereto or (ii) following the time when the Company's Common Stock is registered under the Securities Exchange Act of 1934, as amended ("Exchange Act"), and is quoted, listed or traded on an over-the-counter market or a national securities exchange (a "Public Trading Event"), in accordance with Schedule 2 hereto, provided, in each case, that the Participant continues to be an Eligible Participant on the applicable vesting date. Of the 1,589,155 Performance-Vested Shares vesting pursuant to this Section 2(b), Eight Hundred Thirteen Thousand One Hundred Seventy Eight (813,178) Shares shall be from the First Option Shares and the right to purchase such shares shall expire on the First Final Exercise Date and Seven Hundred Seventy Five Thousand Nine Hundred Seventy Seven (775,977) Shares shall be from the Second Option Shares and the right to purchase such shares shall expire on the Second Final Exercise Date, in each case subject to earlier termination pursuant to the terms of this Agreement and the Plan.

(c) The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all Shares for which it is vested until the earlier of the applicable Final Exercise Date or the termination of this option pursuant to Section 3 hereof or the Plan.

(d) For purposes of this Agreement, a "Change of Control" shall mean the occurrence of any of the following events:

- (i) any merger or consolidation that results in the voting securities of Cerulean outstanding immediately prior thereto representing (either by remaining outstanding or by being converted into voting securities of the surviving or acquiring entity) less than 50% of the combined voting power of the voting securities of Cerulean or such surviving or acquiring entity outstanding immediately after such merger or consolidation;
- (ii) any sale of all or substantially all of the assets of Cerulean;
- (iii) the complete liquidation or dissolution of Cerulean; or
- (iv) the acquisition of "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act) of securities of Cerulean representing 50% or more of the combined voting power of Cerulean's then outstanding securities (other than through a merger or consolidation or an acquisition of securities directly from Cerulean) by any "person," as such term is used in Sections 13(d) and 14(d) of the Exchange Act, other than Cerulean, any trustee or other fiduciary holding securities under an employee benefits plan of Cerulean or any corporation owned

directly or indirectly by the stockholders of Cerulean in substantially the same proportion as their ownership of stock of Cerulean.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be in writing, signed by the Participant, and received by the Company at its principal office, accompanied by this agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of Shares covered hereby, provided that no partial exercise of this option may be for any fractional share.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he exercises this option, is, and has been at all times since the applicable Grant Date, an employee officer or director of, or consultant or advisor to, the Company or any parent or subsidiary of the Company as defined in Section 424(e) or (f) of the Code (an "Eligible Participant").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the applicable Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the applicable Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon written notice to the Participant from the Company describing such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the applicable Final Exercise Date while he is an Eligible Participant and the Company has not terminated such relationship for "Cause" as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the applicable Final Exercise Date.

(e) Termination for Cause. If, prior to the applicable Final Exercise Date, the Participant's employment is terminated by the Company for Cause (as defined in Section 4.3 of the Employment Agreement), the right to exercise this option shall terminate immediately upon the effective date of such termination of employment. If, prior to the applicable Final Exercise Date, the Participant is given notice by the Company of the termination of his employment by the Company for Cause (including without limitation pursuant to Section 4.3 of the Employment Agreement), and the effective date of such employment termination is subsequent to the date of

delivery of such notice, the right to exercise this option shall be suspended from the time of the delivery of such notice until the earlier of (i) such time as it is determined or otherwise agreed that the Participant's employment shall not be terminated for Cause as provided in such notice or (ii) the effective date of such termination of employment (in which case the right to exercise this option shall, pursuant to the preceding sentence, terminate upon the effective date of such termination of employment). The Participant shall be considered to have been discharged for "Cause" if the Company determines, within 30 days after the Participant's resignation, that discharge for cause was warranted.

4. Company Right of First Refusal.

(a) Notice of Proposed Transfer. If the Participant proposes to sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively, "transfer") any Shares acquired upon exercise of this option, then the Participant shall first give written notice of the proposed transfer (the "Transfer Notice") to the Company. The Transfer Notice shall name the proposed transferee and state the number of such Shares the Participant proposes to transfer (the "Offered Shares"), the price per share and all other material terms and conditions of the transfer.

(b) Company Right to Purchase. For 30 days following its receipt of such Transfer Notice, the Company shall have the option to purchase all or part of the Offered Shares at the price and upon the terms set forth in the Transfer Notice. In the event the Company elects to purchase all or part of the Offered Shares, it shall give written notice of such election to the Participant within such 30-day period. Within 10 days after his or her receipt of such notice, the Participant shall tender to the Company at its principal offices the certificate or certificates representing the Offered Shares to be purchased by the Company, duly endorsed in blank by the Participant or with duly endorsed stock powers attached thereto, all in a form suitable for transfer of the Offered Shares to the Company. Promptly following receipt of such certificate or certificates, the Company shall deliver or mail to the Participant a check in payment of the purchase price for such Offered Shares; provided that if the terms of payment set forth in the Transfer Notice were other than cash against delivery, the Company may pay for the Offered Shares on the same terms and conditions as were set forth in the Transfer Notice; and provided further that any delay in making such payment shall not invalidate the Company's exercise of its option to purchase the Offered Shares.

(c) Shares Not Purchased By Company. If the Company does not elect to acquire all of the Offered Shares, the Participant may, within the 30-day period following the expiration of the option granted to the Company under subsection (b) above, transfer the Offered Shares which the Company has not elected to acquire to the proposed transferee, provided that such transfer shall not be on terms and conditions more favorable to the transferee than those contained in the Transfer Notice. Notwithstanding any of the above, all Offered Shares transferred pursuant to this Section 4 shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(d) Consequences of Non-Delivery. After the time at which the Offered Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Offered Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Offered Shares, but shall, insofar as permitted by law, treat the Company as the owner of such Offered Shares.

(e) Exempt Transactions. The following transactions shall be exempt from the provisions of this Section 4:

(1) any transfer of Shares to or for the benefit of any spouse, child or grandchild of the Participant, or to a trust for their benefit;

(2) any transfer pursuant to an effective registration statement filed by the Company under the Securities Act of 1933, as amended (the "Securities Act"); and

(3) the sale of all or substantially all of the shares of capital stock of the Company (including pursuant to a merger or consolidation);

provided, however, that in the case of a transfer pursuant to clause (1) above, such Shares shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(f) Assignment of Company Right. The Company may assign its rights to purchase Offered Shares in any particular transaction under this Section 4 to one or more persons or entities.

(g) Conflict with Right of First Refusal and Co-Sale Agreement. The Participant is a party to the Fifth Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of December 2, 2011 by and among the Company and certain of its stockholders (as it may be amended from time to time, the "Co-Sale Agreement"). If any of the terms or conditions of the Co-Sale Agreement conflict with this Agreement, the terms and conditions of the Co-Sale Agreement shall prevail.

(h) Termination. The provisions of this Section 4 shall terminate upon the earlier of the following events:

(1) the closing of the sale of shares of Common Stock in an underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act; or

(2) the sale of all or substantially all of the capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Common Stock immediately prior to such transaction beneficially own, directly or

indirectly, more than 75% of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

(i) No Obligation to Recognize Invalid Transfer. The Company shall not be required (1) to transfer on its books any of the Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Section 4, or (2) to treat as owner of such Shares or to pay dividends to any transferee to whom any such Shares shall have been so sold or transferred.

(j) Legends. The certificate representing Shares shall bear a legend substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer of the Company securities):

“The shares represented by this certificate are subject to a right of first refusal in favor of the Company, as provided in a certain stock option agreement with the Company.”

5. Agreement in Connection with Public Offering.

The Participant agrees, in connection with any initial underwritten public offering of the Common Stock pursuant to a registration statement under the Securities Act, (i) not to (a) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any other securities of the Company or (b) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of shares of Common Stock or other securities of the Company, whether any transaction described in clause (a) or (b) is to be settled by delivery of securities, in cash or otherwise, during the period beginning on the date of the filing of such registration statement with the Securities and Exchange Commission and ending 180 days after the date of the final prospectus relating to the offering (plus up to an additional 34 days to the extent requested by the managing underwriters for such offering in order to address Rule 2711(f) of the Financial Industry Regulatory Authority, Inc. or any similar successor provision), and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering. The Company may impose stop-transfer instructions with respect to the shares of Common Stock or other securities subject to the foregoing restriction until the end of the “lock-up” period.

6. Tax Matters.

(a) Withholding. No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

(b) Disqualifying Disposition. If the Participant disposes of Shares acquired upon exercise of this option within two years from the applicable Grant Date or one year after such Shares were acquired pursuant to exercise of this option, the Participant shall notify the Company in writing of such disposition.

7. Nontransferability of Option.

This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

8. Provisions of the Plan.

This option is subject to the provisions of the Plan (including the provisions relating to amendments to the Plan), a copy of which is furnished to the Participant with this option.

*[Remainder of page intentionally left blank]*



IN WITNESS WHEREOF, the Company has caused this option to be executed under its corporate seal by its duly authorized officer. This option shall take effect as a sealed instrument.

**CERULEAN PHARMA INC.**

By: /s/ Jean M. Silveri  
Name: Jean M. Silveri  
Title: General Counsel

**Schedule 1**  
**Vesting Schedule in the Event of a Change of Control**

1. The number of Shares which may be acquired on exercise of the option as a result of a Change of Control of the Company will be the number of Shares provided in the table below corresponding to the Range in which the Preliminary Closing Proceeds Per Share falls; provided, however, that if the calculation of the Closing Proceeds Per Share results in Closing Proceeds Per Share that falls within a Range lower than the Range in which the Preliminary Closing Proceeds Per Share falls, then the number of Shares which may be acquired on exercise of the option will be the number corresponding to such lower Range.

2. Definitions. For purposes of this Schedule 1, the following terms shall have the following meanings:

- (a) “**Closing Proceeds**” means the portion of the Total Proceeds available for distribution to holders of Common Stock at or around the closing of the Change of Control.
- (b) “**Closing Proceeds Per Share**” means the quotient of (i) the Closing Proceeds divided by (ii) the sum of (x) the total number of outstanding shares of Common Stock, on an as converted basis, (including shares of Common Stock underlying vested options) at the closing of the Change of Control (excluding any Shares which vest under the Option Awards) and (y) the number of Shares that may be acquired pursuant to the Option Awards based upon the Preliminary Closing Proceeds Per Share.
- (c) “**Option Awards**” means the option granted to the Dr. Fetzer evidenced by this Agreement, together with the option granted to Allan Crane evidenced by the agreement dated March 31, 2013.
- (d) “**Preliminary Closing Proceeds Per Share**” means the quotient of (i) the Closing Proceeds divided by (ii) the total number of outstanding shares of Common Stock, on an as converted basis, (including shares of Common Stock underlying vested options including any options which vest upon or immediately prior to the Change of Control) at the closing of the Change of Control, excluding, for the avoidance of doubt, the number of Shares that may be acquired pursuant to the Option Awards.
- (e) “**Total Proceeds**” means the aggregate total amount to be paid by the acquirer in connection with the Change of Control and which has been, is or will be available for distribution to holders of Common Stock, but in each case without giving effect to any payment to be made pursuant to any Contingent Consideration Award (as such term is defined in the cover letter hereto) made by the Company.

The Total Proceeds shall be a cash amount or converted into a cash amount based on the Board of Director's good faith determination of the value.

3. The number of Shares which may be acquired on exercise of the option depends upon the Range in which the Preliminary Closing Proceeds Per Share falls. The applicable "Range" shall be determined as indicated in the following chart.

<u>Preliminary Closing Proceeds Per Share Range</u>	<u>Number of Shares Vesting</u>
Less than \$2.49	0
\$2.49 or greater but less than \$4.15	486,475
\$4.15 or greater but less than \$4.98	972,950
\$4.98 or greater	1,589,155

All figures referenced in the chart in this Section 3 under Preliminary Closing Proceeds Per Share Range are subject to appropriate adjustment by the Company's Board of Directors in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock.

For the avoidance of doubt, no more than 1,589,155 Shares shall vest pursuant to this Schedule 1 and no more than 1,589,155 shall vest, in the aggregate, pursuant to this Schedule 1 and Schedule 2.

**Schedule 2**  
**Vesting Schedule in the Event of a Public Trading Event**

1. First Vesting Event. The number of Shares which may be acquired on exercise of the option in connection with a Public Trading Event will be the number of Shares provided in the table below corresponding to the Range in which the first Per Share Public Trading Price in excess of \$2.49 falls. The applicable “Range” shall be as determined as indicated in the following chart.

<u>Per Share Public Trading Price Range</u>	<u>Number of Shares Vesting</u>
\$2.49 or greater but less than \$4.15	486,475
\$4.15 or greater but less than \$4.98	972,950
\$4.98 or greater	1,589,155

All figures referenced in the chart in this Section 1 under Per Share Public Trading Price Range are subject to appropriate adjustment by the Company’s Board of Directors in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock.

2. Subsequent Vesting Events. In the event some but not all of the Shares subject to the option and this Schedule 2 vest upon achievement of a Per Share Public Trading Price (a “Vesting Event”), additional Shares will vest upon each achievement of a Per Share Public Trading Price that falls within a higher Range provided in the chart in Section 1 hereof (such Shares, the “Additional Shares”). The number of Additional Shares that vest upon the achievement of a Per Share Public Trading Price that falls within a higher Range than that which triggered the prior Vesting Event(s) shall be (a) the number of Shares corresponding to such Per Share Public Trading Price in the chart in Section 1 hereof, less (b) the sum of (i) the number of Shares which vested upon the prior Vesting Event(s) and (ii) the number (if any) of Additional Shares that previously vested in accordance with this Section 2. For the avoidance of doubt, no more than 1,589,155 Shares shall vest pursuant to this Schedule 2 and no more than 1,589,155 shall vest, in the aggregate, pursuant to Schedule 1 and this Schedule 2.

3. For purposes of this Schedule 2, the following terms shall have the following meanings:

- a. “**Per Share Public Trading Price**” means the 90-day trailing volume weighted average stock price per share, at any time following any applicable Lock Up, calculated based on information reported by the over-the-counter market or national securities exchange on which the Company’s Common Stock is then quoted, listed or traded.
- b. “**Lock-Up**” means the period described in Section 5 of the Agreement or any similar period imposed as a result of or following shares of Common Stock being quoted, listed or admitted to trading on an over-the-counter market or national securities exchange.

**EXHIBIT A**

**NOTICE OF STOCK OPTION EXERCISE**

Date:

Cerulean Pharma Inc.  
840 Memorial Drive  
Cambridge, MA 02139

Attention: Treasurer

Dear Sir or Madam:

I am the holder of an Incentive Stock Option granted to me under the Cerulean Pharma Inc. (the "Company") 2007 Stock Incentive Plan on for the purchase of \_\_\_\_\_ shares of Common Stock of the Company at a purchase price of \$ \_\_\_\_\_ per share.

I hereby exercise my option to purchase \_\_\_\_\_ shares of Common Stock (the "Shares"), for which I have enclosed [cash] [a personal check] in the amount of \_\_\_\_\_. Please register my stock certificate as follows:

Name(s): \_\_\_\_\_

\_\_\_\_\_

Address: \_\_\_\_\_

Tax I.D. #: \_\_\_\_\_

I represent, warrant and covenant as follows:

1. I am purchasing the Shares for my own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933 (the "Securities Act"), or any rule or regulation under the Securities Act.
2. I have had such opportunity as I have deemed adequate to obtain from representatives of the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company.
3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period.
5. I understand that (i) the Shares have not been registered under the Securities Act and are “restricted securities” within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least one year and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

Very truly yours,

---

(Signature)

- Exhibit A, page 2 -

## Attachment 2

Cerulean Pharma Inc.

### Contingent Consideration Award

AGREEMENT made this 31st day of March, 2013 between Cerulean Pharma Inc., a Delaware corporation (the "Company" or "Cerulean") and **Dr. Oliver Fetzer** (the "Executive"). Section 2 of this Agreement contains the definitions used herein.

In the event of a Change of Control pursuant to which consideration in respect of shares held (whether directly or through options) by holders of Common Stock is payable on any date following the Closing Date, the Company agrees to make certain bonus payments to the Executive on the terms and conditions set forth herein.

#### 1. Bonus Payments.

(a) General. If the Executive is an Eligible Participant on the Closing Date, then on each Payment Date other than the Closing Date, the Company (or its successor, as applicable) shall determine the Preliminary Total Proceeds Per Share. If the Preliminary Total Proceeds Per Share is equal to or greater than \$2.49, the Company (or its successor, as applicable) shall determine the Total Proceeds Per Share. If the Total Proceeds Per Share is equal to or greater than \$2.49, the Executive shall be entitled to a Bonus Payment on such Payment Date equal to (i) the product of (A) the Total Proceeds Per Share multiplied by (B) the Bonus Shares, less (ii) the sum of (A) the Aggregate Exercise Price and (B) any previous Bonus Payments made hereunder. All figures referenced in this Section 1(a) are subject to appropriate adjustment by the Board in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock.

#### (b) Form of Payment.

(i) Bonus Payments made to the Executive shall be made in the same form (whether cash, stock, other securities, contingent value rights, or otherwise) as the consideration paid to the Company or its shareholders in connection with the Change of Control on the applicable Payment Date.

(ii) If the consideration paid to the Company or its shareholders in connection with the Change of Control on the applicable Payment Date consists of capital stock that has not been registered under the Securities Act, and for which the Acquirer or the Company, as applicable, has not agreed to file a resale registration statement under the Securities Act within 60 days of the applicable Payment Date, such portion of the Bonus Payment to the Executive as is equal to the amount of the taxes payable by the Executive with respect to the Bonus Payment shall be made in cash at the time that the Bonus Payment is made pursuant to Section 1(c).

(iii) In the event that any portion of the Total Proceeds consists of consideration other than cash, the value of such non-cash consideration for purposes of

determining the amounts payable to the Executive as Bonus Payments shall be the fair market value of such non-cash consideration as determined in good faith by the Board.

(c) Timing of Payment. Any Bonus Payment shall be paid to the Executive if and when a payment of a portion of the Total Proceeds is paid to the Company's shareholders and in any case within 30 days after such payment to the Company's shareholders.

2. Definitions. For purposes of this Agreement:

- (a) "**Acquirer**" means the acquiring or surviving corporation in a Change of Control.
- (b) "**Additional Shares**" means (i) the aggregate number of Shares (as such term is defined in each of the Option Awards) that would have vested under each of the Option Awards upon a Change of Control had the Total Proceeds Per Share been paid on or around the Closing Date; less (ii) the aggregate number of Shares which vested pursuant to each of the Option Awards immediately prior to the closing of the Change of Control.
- (c) "**Aggregate Exercise Price**" means the product of (i) the Exercise Price multiplied by (ii) the Bonus Shares.
- (d) "**Board**" means the Board of Directors of the Company.
- (e) "**Bonus Payment**" means each amount payable to the Executive pursuant to this Agreement in the event of a Change of Control, determined in accordance with Section 1.
- (f) "**Bonus Shares**" means (i) the Additional Shares less (ii) the Additional Shares attributable to Mr. Crane's Option Award.
- (a) "**Change of Control**" means the occurrence of any of the following events:
  - (i) any merger or consolidation that results in the voting securities of Cerulean outstanding immediately prior thereto representing (either by remaining outstanding or by being converted into voting securities of the surviving or acquiring entity) less than 50% of the combined voting power of the voting securities of Cerulean or such surviving or acquiring entity outstanding immediately after such merger or consolidation;
  - (ii) any sale of all or substantially all of the assets of Cerulean;
  - (iii) the complete liquidation or dissolution of Cerulean; or
  - (iv) the acquisition of "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act) of securities of Cerulean representing 50% or more of the combined voting power of Cerulean's then outstanding securities (other than through a merger or consolidation or an acquisition of securities directly from



Cerulean) by any “person,” as such term is used in Sections 13(d) and 14(d) of the Exchange Act, other than Cerulean, any trustee or other fiduciary holding securities under an employee benefits plan of Cerulean or any corporation owned directly or indirectly by the stockholders of Cerulean in substantially the same proportion as their ownership of stock of Cerulean.

Notwithstanding the foregoing, any Change of Control must also constitute a change in the ownership or effective control of the Company or a change in the ownership of a substantial portion of the assets of the Company as determined under Treasury Regulation Section 1.409A-3(i)(5).

- (g) “**Closing Date**” means the closing date of the Change of Control.
- (h) “**Code**” means the Internal Revenue Code of 1986, as amended.
- (i) “**Common Stock**” means shares of the common stock, \$0.0001 par value per share, of the Company.
- (j) “**Exchange Act**” means the Securities Exchange Act of 1934, as amended.
- (k) “**Exercise Price**” means \$0.27.
- (l) “**Eligible Participant**” shall have the meaning ascribed to it under the Executive’s Option Award.
- (m) “**Option Awards**” means the options granted to Dr. Fetzer pursuant to the agreement dated March 31, 2013 together with the option granted to Mr. Crane on February 7, 2013.
- (n) “**Payment Date**” means each date on which the Acquirer makes a payment in connection with the Change of Control which payment is available for distribution to the holders of Company Common Stock.
- (o) “**Preliminary Total Proceeds Per Share**” means the quotient of (i) the Total Proceeds divided by (ii) the total number of outstanding shares of Common Stock, on an as converted basis, (including Common Stock underlying vested options (including any options which vest upon or immediately prior to the Change of Control)) as of the closing of the Change of Control.
- (p) “**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.
- (q) “**Total Proceeds**” means, as of each Payment Date, the aggregate total amount paid by the Acquirer in connection with the Change of Control that is or has been available for immediate distribution to holders of Common Stock but in each case without giving effect to any payment to be made pursuant to this Agreement or

any similar agreement between the Company and Mr. Crane. For the avoidance of doubt, for purposes of calculating each Bonus Payment payable pursuant to the terms of this Agreement, the Total Proceeds shall equal the sum of (i) the portion of the Total Proceeds then available for immediate distribution to holders of Common Stock and (ii) the portion of the Total Proceeds previously available for distribution to holders of Common Stock.

- (r) “**Total Proceeds Per Share**” shall mean the quotient of (i) the Total Proceeds divided by (ii) the sum of (x) the total number of outstanding shares of Common Stock, on an as converted basis, (including Common Stock underlying vested options (including any options which vest upon or immediately prior to the Change of Control)) as of the closing of the Change of Control and (y) the Additional Shares.

3. Withholding of Compensation. The Company (or its successor) or the Acquirer may withhold from any payments under the Agreement and from any other amounts payable to the Executive by the Company (or its successor, as applicable) any amount required to satisfy the income and employment tax withholding obligations arising under applicable laws in respect of a Bonus Payment. Without limiting the foregoing, the Company (or its successor) or the Acquirer may, in its sole discretion, satisfy the tax withholding obligations by withholding from any securities otherwise issuable to the Executive pursuant to the Agreement a number of whole shares of such issuable capital stock having a fair market value as of the date of payment not in excess of the minimum amount of tax required to be withheld by law. The Executive is encouraged to contact his personal legal or tax advisors with respect to the benefits provided by the Agreement. Neither the Company nor any of its employees, directors officers or agents is authorized to provide any tax advice to the Executive with respect to the benefits provided under the Agreement.

#### 4. Miscellaneous.

(a) Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Executive.

(b) No Right to Employment. This Agreement shall not be construed as giving the Executive the right to continued employment with the Company or any successor thereto or subsidiary thereof.

(c) Transferability. The right to receive a Bonus Payment may not be sold, assigned, transferred, pledged, or otherwise encumbered by the Executive, either voluntarily or by operation of law.

(d) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the Company and the Executive and their respective heirs, executors, administrators, legal representatives, successors and assigns, subject to the restriction on transfer set forth in Section 4(c) of this Agreement.

(e) Assumption by Acquirer. The Company's obligations to pay the Bonus Payments to the Executive hereunder will be deemed to have been appropriately satisfied if the Acquirer assumes such obligations and pays the Bonus Payments as provided hereunder.

(f) Section 409A. This Agreement is intended to comply with, or be exempt from, the provisions of Section 409A of the Code and shall be interpreted consistently therewith. It is intended that each installment of the payments provided under the Agreement is a separate "payment" for purposes of Section 409A. It is intended that all Bonus Payments to the Executive shall be paid in accordance with the rules set forth under Treasury Regulation Section 1.409A-3(i)(5)(iv). Neither the Company nor the Board makes any representation or warranty and shall have no liability to the Executive or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such section.

(f) Headings. The headings used herein are intended only for convenience and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(g) Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than such state.

*[Remainder of page intentionally left blank.]*

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

**CERULEAN PHARMA INC.**

By: /s/ Jean M. Silveri

Name: Jean M. Silveri

Title: General Counsel

**EXECUTIVE**

/s/ Oliver Fetzer

Dr. Oliver Fetzer

*[Signature Page to Contingent Consideration Award Agreement]*

Cerulean Pharma Inc.  
840 Memorial Drive  
Cambridge, MA 02139

DATE: March 31, 2013

Dear Alan:

On behalf of Cerulean Pharma Inc. (the "Company"), I am pleased to set forth below and in the attached documents the vesting terms and conditions of the option granted to you by the Company's Board of Directors on February 7, 2013 (the "Option Award"). Your Option Award agreement (the "Option Agreement") is attached hereto as Attachment 1. A cash bonus award (the "Contingent Consideration Award"), which shall be payable to you only if the consideration payable in connection with a Change of Control (as such term is defined in the award documents attached hereto) of the Company is not payable in its entirety upon the closing of such Change of Control, is attached hereto as Attachment 2. Together, we refer to the Option Award and the Contingent Consideration Award as the "Award".

IN WITNESS WHEREOF, the Company has caused this Award to be executed under its corporate seal by its duly authorized officer. This Award shall take effect as a sealed instrument.

**CERULEAN PHARMA INC.**

By: /s/ Karen L. Roberts

Name: Karen L. Roberts

Title: SVP Finance & Administration, Treasurer

PARTICIPANT'S ACCEPTANCE

The undersigned hereby accepts the foregoing Award, which is constituted of the Option Award and the Contingent Consideration Award, and agrees to the terms and conditions thereof. The undersigned hereby acknowledges receipt of a copy of the Company's 2007 Stock Incentive Plan.

PARTICIPANT:

/s/ Alan Crane

Alan Crane

## Attachment 1

Cerulean Pharma Inc.

### Nonstatutory Stock Option Agreement Granted Under 2007 Stock Incentive Plan

#### 1. Grant of Option.

This agreement evidences the grant by Cerulean Pharma Inc., a Delaware corporation (the “Company” or “Cerulean”), on February 7, 2013 (the “Grant Date”) to Alan Crane, a director of the Company (the “Participant”), of an option to purchase, in whole or in part, on the terms provided herein and in the Company’s 2007 Stock Incentive Plan, as amended (the “Plan”), a total of 518,855 shares (the “Shares”) of common stock, \$0.0001 par value per share, of the Company (“Common Stock”) at \$0.27 per Share. Unless earlier terminated, this option shall expire at 5:00 p.m., Eastern time, on February 6, 2023 (the “Final Exercise Date”).

It is intended that the option evidenced by this agreement shall not be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the “Code”). Except as otherwise indicated by the context, the term “Participant”, as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

#### 2. Vesting Schedule.

(a) The Shares subject to this option will become exercisable (“vest”) either: (i) immediately prior to a Change of Control (as defined below), in accordance with Schedule 1 hereto or (ii) following the time when the Company’s Common Stock is registered under the Securities Exchange Act of 1934, as amended (“Exchange Act”), and is quoted, listed or traded on an over-the-counter market or a national securities exchange (a “Public Trading Event”), in accordance with Schedule 2 hereto, provided, in each case, that the Participant continues to be an Eligible Participant on the applicable vesting date.

(b) The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all Shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option pursuant to Section 3 hereof or the Plan.

(c) For purposes of this Agreement, a “Change of Control” shall mean the occurrence of any of the following events:

(i) any merger or consolidation that results in the voting securities of Cerulean outstanding immediately prior thereto representing (either by remaining outstanding or by being converted into voting securities of the surviving or acquiring entity) less than 50% of the combined voting power of the voting

securities of Cerulean or such surviving or acquiring entity outstanding immediately after such merger or consolidation;

(ii) any sale of all or substantially all of the assets of Cerulean;

(iii) the complete liquidation or dissolution of Cerulean; or

(iv) the acquisition of "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act) of securities of Cerulean representing 50% or more of the combined voting power of Cerulean's then outstanding securities (other than through a merger or consolidation or an acquisition of securities directly from Cerulean) by any "person," as such term is used in Sections 13(d) and 14(d) of the Exchange Act, other than Cerulean, any trustee or other fiduciary holding securities under an employee benefits plan of Cerulean or any corporation owned directly or indirectly by the stockholders of Cerulean in substantially the same proportion as their ownership of stock of Cerulean.

### 3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be in writing, signed by the Participant, and received by the Company at its principal office, accompanied by this agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of Shares covered hereby, provided that no partial exercise of this option may be for any fractional share.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he exercises this option, is, and has been at all times since the Grant Date, an employee officer or director of, or consultant or advisor to, the Company or any parent or subsidiary of the Company as defined in Section 424(e) or (f) of the Code (an "Eligible Participant").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon written notice to the Participant from the Company describing such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he is an Eligible Participant and the Company has not terminated such relationship for



“Cause” as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Termination for Cause. If, prior to the Final Exercise Date, the Participant’s relationship with the Company is terminated by the Company for Cause (as defined in Section 4.B. of the Company’s Change in Control Severance Plan), the right to exercise this option shall terminate immediately upon the effective date of such termination. If, prior to the Final Exercise Date, the Participant is given notice by the Company of the termination of his relationship by the Company for Cause, and the effective date of such termination is subsequent to the date of delivery of such notice, the right to exercise this option shall be suspended from the time of the delivery of such notice until the earlier of (i) such time as it is determined or otherwise agreed that the Participant’s relationship shall not be terminated for Cause as provided in such notice or (ii) the effective date of such termination (in which case the right to exercise this option shall, pursuant to the preceding sentence, terminate upon the effective date of such termination). The Participant shall be considered to have been discharged for “Cause” if the Company determines, within 30 days after the Participant’s resignation, that discharge for cause was warranted.

#### 4. Company Right of First Refusal.

(a) Notice of Proposed Transfer. If the Participant proposes to sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively, “transfer”) any Shares acquired upon exercise of this option, then the Participant shall first give written notice of the proposed transfer (the “Transfer Notice”) to the Company. The Transfer Notice shall name the proposed transferee and state the number of such Shares the Participant proposes to transfer (the “Offered Shares”), the price per share and all other material terms and conditions of the transfer.

(b) Company Right to Purchase. For 30 days following its receipt of such Transfer Notice, the Company shall have the option to purchase all or part of the Offered Shares at the price and upon the terms set forth in the Transfer Notice. In the event the Company elects to purchase all or part of the Offered Shares, it shall give written notice of such election to the Participant within such 30-day period. Within 10 days after his or her receipt of such notice, the Participant shall tender to the Company at its principal offices the certificate or certificates representing the Offered Shares to be purchased by the Company, duly endorsed in blank by the Participant or with duly endorsed stock powers attached thereto, all in a form suitable for transfer of the Offered Shares to the Company. Promptly following receipt of such certificate or certificates, the Company shall deliver or mail to the Participant a check in payment of the purchase price for such Offered Shares; provided that if the terms of payment set forth in the Transfer Notice were other than cash against delivery, the Company may pay for the Offered Shares on the same terms and conditions as were set forth in the Transfer Notice; and provided

further that any delay in making such payment shall not invalidate the Company's exercise of its option to purchase the Offered Shares.

(c) Shares Not Purchased By Company. If the Company does not elect to acquire all of the Offered Shares, the Participant may, within the 30-day period following the expiration of the option granted to the Company under subsection (b) above, transfer the Offered Shares which the Company has not elected to acquire to the proposed transferee, provided that such transfer shall not be on terms and conditions more favorable to the transferee than those contained in the Transfer Notice. Notwithstanding any of the above, all Offered Shares transferred pursuant to this Section 4 shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(d) Consequences of Non-Delivery. After the time at which the Offered Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Offered Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Offered Shares, but shall, insofar as permitted by law, treat the Company as the owner of such Offered Shares.

(e) Exempt Transactions. The following transactions shall be exempt from the provisions of this Section 4:

(1) any transfer of Shares to or for the benefit of any spouse, child or grandchild of the Participant, or to a trust for their benefit;

(2) any transfer pursuant to an effective registration statement filed by the Company under the Securities Act of 1933, as amended (the "Securities Act"); and

(3) the sale of all or substantially all of the shares of capital stock of the Company (including pursuant to a merger or consolidation);

provided, however, that in the case of a transfer pursuant to clause (1) above, such Shares shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(f) Assignment of Company Right. The Company may assign its rights to purchase Offered Shares in any particular transaction under this Section 4 to one or more persons or entities.

(g) Conflict with Right of First Refusal and Co-Sale Agreement. The Participant is a party to the Fifth Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of December 2, 2011 by and among the Company and certain of its stockholders (as it may be amended from time to time, the "Co-Sale Agreement"). If any of the terms or conditions of the

Co-Sale Agreement conflict with this Agreement, the terms and conditions of the Co-Sale Agreement shall prevail.

(h) Termination. The provisions of this Section 4 shall terminate upon the earlier of the following events:

(1) the closing of the sale of shares of Common Stock in an underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act; or

(2) the sale of all or substantially all of the capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Common Stock immediately prior to such transaction beneficially own, directly or indirectly, more than 75% of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

(i) No Obligation to Recognize Invalid Transfer. The Company shall not be required (1) to transfer on its books any of the Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Section 4, or (2) to treat as owner of such Shares or to pay dividends to any transferee to whom any such Shares shall have been so sold or transferred.

(j) Legends. The certificate representing Shares shall bear a legend substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer of the Company securities):

“The shares represented by this certificate are subject to a right of first refusal in favor of the Company, as provided in a certain stock option agreement with the Company.”

##### 5. Agreement in Connection with Public Offering.

The Participant agrees, in connection with any initial underwritten public offering of the Common Stock pursuant to a registration statement under the Securities Act, (i) not to (a) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any other securities of the Company or (b) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of shares of Common Stock or other securities of the Company, whether any transaction described in clause (a) or (b) is to be settled by delivery of securities, in cash or otherwise, during the period beginning on the date of the filing of such registration statement with the Securities and Exchange Commission and ending 180 days after the date of the final prospectus relating to the offering (plus up to an additional 34 days to the extent requested by the managing underwriters for such offering in

order to address Rule 2711(f) of the Financial Industry Regulatory Authority, Inc. or any similar successor provision), and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering. The Company may impose stop-transfer instructions with respect to the shares of Common Stock or other securities subject to the foregoing restriction until the end of the "lock-up" period.

6. Withholding. No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

7. Nontransferability of Option.

This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

8. Provisions of the Plan.

This option is subject to the provisions of the Plan (including the provisions relating to amendments to the Plan), a copy of which is furnished to the Participant with this option.

*[Remainder of page intentionally left blank]*

IN WITNESS WHEREOF, the Company has caused this option to be executed under its corporate seal by its duly authorized officer. This option shall take effect as a sealed instrument.

**CERULEAN PHARMA INC.**

By: /s/ Karen L. Roberts

Name: Karen L. Roberts

Title: SVP Finance & Administration, Treasurer

**Schedule 1**  
**Vesting Schedule in the Event of a Change of Control**

1. The number of Shares which may be acquired on exercise of the option as a result of a Change of Control of the Company will be the number of Shares provided in the table below corresponding to the Range in which the Preliminary Closing Proceeds Per Share falls; provided, however, that if the calculation of the Closing Proceeds Per Share results in Closing Proceeds Per Share that falls within a Range lower than the Range in which the Preliminary Closing Proceeds Per Share falls, then the number of Shares which may be acquired on exercise of the option will be the number corresponding to such lower Range.

2. Definitions. For purposes of this Schedule 1, the following terms shall have the following meanings:

- (a) “**Closing Proceeds**” means the portion of the Total Proceeds available for distribution to holders of Common Stock at or around the closing of the Change of Control.
- (b) “**Closing Proceeds Per Share**” means the quotient of (i) the Closing Proceeds divided by (ii) the sum of (x) the total number of outstanding shares of Common Stock, on an as converted basis, (including shares of Common Stock underlying vested options) at the closing of the Change of Control (excluding any Shares which vest under the Option Awards) and (y) the number of Shares that may be acquired pursuant to the Option Awards based upon the Preliminary Closing Proceeds Per Share.
- (c) “**Option Awards**” means the option granted to the Mr. Crane evidenced by this Agreement, together with the option granted to Dr. Oliver Fetzer evidenced by the agreement dated March 31, 2013.
- (d) “**Preliminary Closing Proceeds Per Share**” means the quotient of (i) the Closing Proceeds divided by (ii) the total number of outstanding shares of Common Stock, on an as converted basis, (including shares of Common Stock underlying vested options including any options which vest upon or immediately prior to the Change of Control) at the closing of the Change of Control, excluding, for the avoidance of doubt, the number of Shares that may be acquired pursuant to the Option Awards.
- (e) “**Total Proceeds**” means the aggregate total amount to be paid by the acquirer in connection with the Change of Control and which has been, is or will be available for distribution to holders of Common Stock, but in each case without giving effect to any payment to be made pursuant to any Contingent Consideration Award (as such term is defined in the cover letter hereto) made by the Company.

The Total Proceeds shall be a cash amount or converted into a cash amount based on the Board of Director's good faith determination of the value.

3. The number of Shares which may be acquired on exercise of the option depends upon the Range in which the Preliminary Closing Proceeds Per Share falls. The applicable "Range" shall be determined as indicated in the following chart.

<u>Preliminary Closing Proceeds Per Share Range</u>	<u>Number of Shares Vesting</u>
Less than \$2.49	0
\$2.49 or greater but less than \$4.15	172,951
\$4.15 or greater but less than \$4.98	345,903
\$4.98 or greater	518,885

All figures referenced in the chart in this Section 3 under Preliminary Closing Proceeds Per Share Range are subject to appropriate adjustment by the Company's Board of Directors in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock.

For the avoidance of doubt, no more than 518,855 Shares shall vest pursuant to this Schedule 1 and no more than 518,855 shall vest, in the aggregate, pursuant to this Schedule 1 and Schedule 2.

**Schedule 2**  
**Vesting Schedule in the Event of a Public Trading Event**

1. First Vesting Event. The number of Shares which may be acquired on exercise of the option in connection with a Public Trading Event will be the number of Shares provided in the table below corresponding to the Range in which the first Per Share Public Trading Price in excess of \$2.49 falls. The applicable “Range” shall be as determined as indicated in the following chart.

<u>Per Share Public Trading Price Range</u>	<u>Number of Shares Vesting</u>
\$2.49 or greater but less than \$4.15	172,951
\$4.15 or greater but less than \$4.98	345,903
\$4.98 or greater	518,855

All figures referenced in the chart in this Section 1 under Per Share Public Trading Price Range are subject to appropriate adjustment by the Company’s Board of Directors in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock.

2. Subsequent Vesting Events. In the event some but not all of the Shares subject to the option and this Schedule 2 vest upon achievement of a Per Share Public Trading Price (a “Vesting Event”), additional Shares will vest upon each achievement of a Per Share Public Trading Price that falls within a higher Range provided in the chart in Section 1 hereof (such Shares, the “Additional Shares”). The number of Additional Shares that vest upon the achievement of a Per Share Public Trading Price that falls within a higher Range than that which triggered the prior Vesting Event(s) shall be (a) the number of Shares corresponding to such Per Share Public Trading Price in the chart in Section 1 hereof, less (b) the sum of (i) the number of Shares which vested upon the prior Vesting Event(s) and (ii) the number (if any) of Additional Shares that previously vested in accordance with this Section 2. For the avoidance of doubt, no more than 518,855 Shares shall vest pursuant to this Schedule 2 and no more than 518,855 shall vest, in the aggregate, pursuant to Schedule 1 and this Schedule 2.

3. For purposes of this Schedule 2, the following terms shall have the following meanings:

- a. “**Per Share Public Trading Price**” means the 90-day trailing volume weighted average stock price per share, at any time following any applicable Lock Up, calculated based on information reported by the over-the-counter market or national securities exchange on which the Company’s Common Stock is then quoted, listed or traded.
- b. “**Lock-Up**” means the period described in Section 5 of the Agreement or any similar period imposed as a result of or following shares of Common Stock being quoted, listed or admitted to trading on an over-the-counter market or national securities exchange.



**EXHIBIT A**

**NOTICE OF STOCK OPTION EXERCISE**

Date:

Cerulean Pharma Inc.  
840 Memorial Drive  
Cambridge, MA 02139

Attention: Treasurer

Dear Sir or Madam:

I am the holder of a Nonstatutory Stock Option granted to me under the Cerulean Pharma Inc. (the "Company") 2007 Stock Incentive Plan on for the purchase of \_\_\_\_\_ shares of Common Stock of the Company at a purchase price of \$ \_\_\_\_\_ per share.

I hereby exercise my option to purchase \_\_\_\_\_ shares of Common Stock (the "Shares"), for which I have enclosed [cash] [a personal check] in the amount of \_\_\_\_\_. Please register my stock certificate as follows:

Name(s): \_\_\_\_\_

\_\_\_\_\_

Address: \_\_\_\_\_

Tax I.D. #: \_\_\_\_\_

I represent, warrant and covenant as follows:

1. I am purchasing the Shares for my own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933 (the "Securities Act"), or any rule or regulation under the Securities Act.
2. I have had such opportunity as I have deemed adequate to obtain from representatives of the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company.
3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period.
5. I understand that (i) the Shares have not been registered under the Securities Act and are “restricted securities” within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least one year and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

Very truly yours,

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(Signature)

- Exhibit A, page 2 -

## Attachment 2

Cerulean Pharma Inc.

### Contingent Consideration Award

AGREEMENT made this 31st day of March, 2013 between Cerulean Pharma Inc., a Delaware corporation (the "Company" or "Cerulean") and **Alan Crane** (the "Director"). Section 2 of this Agreement contains the definitions used herein.

In the event of a Change of Control pursuant to which consideration in respect of shares held (whether directly or through options) by holders of Common Stock is payable on any date following the Closing Date, the Company agrees to make certain bonus payments to the Director on the terms and conditions set forth herein.

#### 1. Bonus Payments.

(a) General. If the Director is an Eligible Participant on the Closing Date, then on each Payment Date other than the Closing Date, the Company (or its successor, as applicable) shall determine the Preliminary Total Proceeds Per Share. If the Preliminary Total Proceeds Per Share is equal to or greater than \$2.49, the Company (or its successor, as applicable) shall determine the Total Proceeds Per Share. If the Total Proceeds Per Share is equal to or greater than \$2.49, the Director shall be entitled to a Bonus Payment on such Payment Date equal to (i) the product of (A) the Total Proceeds Per Share multiplied by (B) the Bonus Shares, less (ii) the sum of (A) the Aggregate Exercise Price and (B) any previous Bonus Payments made hereunder. All figures referenced in this Section 1(a) are subject to appropriate adjustment by the Board in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock.

#### (b) Form of Payment.

(i) Bonus Payments made to the Director shall be made in the same form (whether cash, stock, other securities, contingent value rights, or otherwise) as the consideration paid to the Company or its shareholders in connection with the Change of Control on the applicable Payment Date.

(ii) If the consideration paid to the Company or its shareholders in connection with the Change of Control on the applicable Payment Date consists of capital stock that has not been registered under the Securities Act, and for which the Acquirer or the Company, as applicable, has not agreed to file a resale registration statement under the Securities Act within 60 days of the applicable Payment Date, such portion of the Bonus Payment to the Director as is equal to the amount of the taxes payable by the Director with respect to the Bonus Payment shall be made in cash at the time that the Bonus Payment is made pursuant to Section 1(c).

(iii) In the event that any portion of the Total Proceeds consists of consideration other than cash, the value of such non-cash consideration for purposes of

determining the amounts payable to the Director as Bonus Payments shall be the fair market value of such non-cash consideration as determined in good faith by the Board.

(c) Timing of Payment. Any Bonus Payment shall be paid to the Director if and when a payment of a portion of the Total Proceeds is paid to the Company's shareholders and in any case within 30 days after such payment to the Company's shareholders.

2. Definitions. For purposes of this Agreement:

- (a) "**Acquirer**" means the acquiring or surviving corporation in a Change of Control.
- (b) "**Additional Shares**" means (i) the aggregate number of Shares (as such term is defined in each of the Option Awards) that would have vested under each of the Option Awards upon a Change of Control had the Total Proceeds Per Share been paid on or around the Closing Date; less (ii) the aggregate number of Shares which vested pursuant to each of the Option Awards immediately prior to the closing of the Change of Control.
- (c) "**Aggregate Exercise Price**" means the product of (i) the Exercise Price multiplied by (ii) the Bonus Shares.
- (d) "**Board**" means the Board of Directors of the Company.
- (e) "**Bonus Payment**" means each amount payable to the Director pursuant to this Agreement in the event of a Change of Control, determined in accordance with Section 1.
- (f) "**Bonus Shares**" means (i) the Additional Shares less (ii) the Additional Shares attributable to Dr. Oliver Fetzer's Option Award.
- (a) "**Change of Control**" means the occurrence of any of the following events:
  - (i) any merger or consolidation that results in the voting securities of Cerulean outstanding immediately prior thereto representing (either by remaining outstanding or by being converted into voting securities of the surviving or acquiring entity) less than 50% of the combined voting power of the voting securities of Cerulean or such surviving or acquiring entity outstanding immediately after such merger or consolidation;
  - (ii) any sale of all or substantially all of the assets of Cerulean;
  - (iii) the complete liquidation or dissolution of Cerulean; or
  - (iv) the acquisition of "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act) of securities of Cerulean representing 50% or more of the combined voting power of Cerulean's then outstanding securities (other than through a merger or consolidation or an acquisition of securities directly from

Cerulean) by any “person,” as such term is used in Sections 13(d) and 14(d) of the Exchange Act, other than Cerulean, any trustee or other fiduciary holding securities under an employee benefits plan of Cerulean or any corporation owned directly or indirectly by the stockholders of Cerulean in substantially the same proportion as their ownership of stock of Cerulean.

Notwithstanding the foregoing, any Change of Control must also constitute a change in the ownership or effective control of the Company or a change in the ownership of a substantial portion of the assets of the Company as determined under Treasury Regulation Section 1.409A-3(i)(5).

- (g) “**Closing Date**” means the closing date of the Change of Control.
- (h) “**Code**” means the Internal Revenue Code of 1986, as amended.
- (i) “**Common Stock**” means shares of the common stock, \$0.0001 par value per share, of the Company.
- (j) “**Exchange Act**” means the Securities Exchange Act of 1934, as amended.
- (k) “**Exercise Price**” means \$0.27.
- (l) “**Eligible Participant**” shall have the meaning ascribed to it under the Director’s Option Award.
- (m) “**Option Awards**” means the option granted to Mr. Crane on February 7, 2013, together with the option granted to Dr. Fetzner pursuant to the agreement dated [DATE].
- (n) “**Payment Date**” means each date on which the Acquirer makes a payment in connection with the Change of Control which payment is available for distribution to the holders of Company Common Stock.
- (o) “**Preliminary Total Proceeds Per Share**” means the quotient of (i) the Total Proceeds dividend by (ii) the total number of outstanding shares of Common Stock, on an as converted basis, (including Common Stock underlying vested options (including any options which vest upon or immediately prior to the Change of Control)) as of the closing of the Change of Control.
- (p) “**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.
- (q) “**Total Proceeds**” means, as of each Payment Date, the aggregate total amount paid by the Acquirer in connection with the Change of Control that is or has been available for immediate distribution to holders of Common Stock but in each case without giving effect to any payment to be made pursuant to this Agreement or

any similar agreement between the Company and Dr. Fetzer. For the avoidance of doubt, for purposes of calculating each Bonus Payment payable pursuant to the terms of this Agreement, the Total Proceeds shall equal the sum of (i) the portion of the Total Proceeds then available for immediate distribution to holders of Common Stock and (ii) the portion of the Total Proceeds previously available for distribution to holders of Common Stock.

- (r) “**Total Proceeds Per Share**” shall mean the quotient of (i) the Total Proceeds divided by (ii) the sum of (x) the total number of outstanding shares of Common Stock, on an as converted basis, (including Common Stock underlying vested options (including any options which vest upon or immediately prior to the Change of Control)) as of the closing of the Change of Control and (y) the Additional Shares.

3. Withholding of Compensation. The Company (or its successor) or the Acquirer may withhold from any payments under the Agreement and from any other amounts payable to the Director by the Company (or its successor, as applicable) any amount required to satisfy the income and employment tax withholding obligations arising under applicable laws in respect of a Bonus Payment. Without limiting the foregoing, the Company (or its successor) or the Acquirer may, in its sole discretion, satisfy the tax withholding obligations by withholding from any securities otherwise issuable to the Director pursuant to the Agreement a number of whole shares of such issuable capital stock having a fair market value as of the date of payment not in excess of the minimum amount of tax required to be withheld by law. The Director is encouraged to contact his personal legal or tax advisors with respect to the benefits provided by the Agreement. Neither the Company nor any of its employees, directors, officers or agents is authorized to provide any tax advice to the Director with respect to the benefits provided under the Agreement.

#### 4. Miscellaneous.

(a) Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Director.

(b) No Right to Service. This Agreement shall not be construed as giving the Director the right to continued service with the Company or any successor thereto or subsidiary thereof.

(c) Transferability. The right to receive a Bonus Payment may not be sold, assigned, transferred, pledged, or otherwise encumbered by the Director, either voluntarily or by operation of law.

(d) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the Company and the Director and their respective heirs, executors, administrators, legal representatives, successors and assigns, subject to the restriction on transfer set forth in Section 4(c) of this Agreement.

(e) Assumption by Acquirer. The Company's obligations to pay the Bonus Payments to the Director hereunder will be deemed to have been appropriately satisfied if the Acquirer assumes such obligations and pays the Bonus Payments as provided hereunder.

(f) Section 409A. This Agreement is intended to comply with, or be exempt from, the provisions of Section 409A of the Code and shall be interpreted consistently therewith. It is intended that each installment of the payments provided under the Agreement is a separate "payment" for purposes of Section 409A. It is intended that all Bonus Payments to the Director shall be paid in accordance with the rules set forth under Treasury Regulation Section 1.409A-3(i)(5)(iv). Neither the Company nor the Board makes any representation or warranty and shall have no liability to the Director or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such section.

(f) Headings. The headings used herein are intended only for convenience and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(g) Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than such state.

*[Remainder of page intentionally left blank.]*

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

**CERULEAN PHARMA INC.**

By: /s/ Karen L. Roberts

Name: Karen L. Roberts

Title: SVP Finance & Administration, Treasurer

**DIRECTOR**

/s/ Alan Crane

Alan Crane

*[Signature Page to Contingent Consideration Award Agreement]*



**Cerulean Pharma Inc.****Change in Control Severance Plan**

**1. Establishment of Plan.** Cerulean Pharma Inc. (the “*Company*” or “*Cerulean*”) hereby establishes an unfunded severance benefits plan (the “*Plan*”) that is intended to be a welfare benefit plan within the meaning of Section 3(1) of the Employee Retirement Income Security Act of 1974, as amended (“*ERISA*”). The Plan is in effect for covered employees whose employment terminates under circumstances specified herein following a Change in Control (defined below) occurring after March 7, 2012 (the “*Effective Date*”) and before the termination of this Plan. Except as set forth in Section 5(1) of this Plan, this Plan supersedes any and all severance plans or separation policies applying to covered employees that may have been in effect before the Effective Date throughout the Company with respect to any termination of employment during the Protected Period (defined below).

**2. Purpose.** The purpose of the Plan is to establish the conditions under which covered employees (defined below) will receive severance benefits described herein if employment with the Company (or its successor in a Change in Control) terminates during the Protected Period under the circumstances specified herein. The severance benefits paid under the Plan are intended to assist employees in making a transition to new employment.

**3. Coverage.** Covered employees may be entitled to receive the severance benefits under the Plan if the Company terminates their employment without “Cause” (defined below) or they resign for “Good Reason” (defined below) within the one-year period following the closing of the Change in Control (the “*Protected Period*”). In order to receive the severance benefits under the Plan, covered employees must meet the eligibility and other requirements provided below in Sections 5 and 6 of the Plan.

A. To be a covered employees, an individual must (i) be a regular full-time employee (either exempt or non-exempt) who has a title of Vice President or higher (ii) whose employment with the Company is terminated by the Company without Cause or by the employee for Good Reason during the Protected Period (“*covered employees*” or “*participants*”) and (iii) who is designated as eligible to receive severance benefits under the Plan as provided in Section 5. Part-time employees otherwise satisfying the criteria to be a covered employee is eligible to be designated as covered employees under the Plan and to therefore be eligible for severance benefits under the Plan solely to the extent designated by the Plan Administrator. Temporary employees are not eligible for severance benefits under the Plan.

B. For the purpose of this Plan, “*regular full-time employee*” is an employee, other than a temporary employee, normally scheduled to work at least 32 hours a week unless the Company’s local practices, as from time to time in force, whether or not in writing, establish a different hours threshold for a regular full-time employee. A “*part-time employee*” is an employee who is not a full-time employee and is treated as such by the Company. A “*temporary employees*” is an employee treated as such by the Company, whether or not in writing. An employee’s full-time, part-time or temporary

status for the purpose of this Plan is determined by the Plan Administrator (defined below) upon review of the employee's status immediately before termination.

C. Any person who is classified by the Company as an independent contractor or third party employee is not eligible for severance benefits even if such classification is modified retroactively.

#### **4. Definitions. For purposes of this Plan,**

A. "*Change in Control*" shall mean the occurrence of any of the following events:

- (i) any merger or consolidation that results in the voting securities of Cerulean outstanding immediately prior thereto representing (either by remaining outstanding or by being converted into voting securities of the surviving or acquiring entity) less than 50% of the combined voting power of the voting securities of Cerulean or such surviving or acquiring entity outstanding immediately after such merger or consolidation;
- (ii) any sale of all or substantially all of the assets of Cerulean;
- (iii) the complete liquidation or dissolution of Cerulean; or
- (iv) the acquisition of "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act) of securities of Cerulean representing 50% or more of the combined voting power of Cerulean's then outstanding securities (other than through a merger or consolidation or an acquisition of securities directly from Cerulean) by any "person," as such term is used in Sections 13(d) and 14(d) of the Exchange Act, other than Cerulean, any trustee or other fiduciary holding securities under an employee benefits plan of Cerulean or any corporation owned directly or indirectly by the stockholders of Cerulean in substantially the same proportion as their ownership of stock of Cerulean;

provided, however, that no event shall constitute a Change in Control unless: (A) such event results in proceeds received by Cerulean's stockholders or by Cerulean, as the case may be, on or before the closing date of such event, in an amount equal to or greater than \$150 million (such amount including any amount retained by the acquiring entity in an escrow to secure indemnification obligations) and (B) such event or occurrence constitutes a change in the ownership or effective control of Cerulean, or a change in the ownership of a substantial portion of the assets of Cerulean, as defined in Treasury Regulation §§1.409A-3(i)(5)(v), (vi) and (vii).

B. "*Cause*" shall mean (i) a material breach of any material term of any offer letter, employment or other similar agreement or the Non-Disclosure, Non-Competition and Assignment of Intellectual Property Agreement, in each case between the participant

and the Company, (ii) a plea of guilty or nolo contendere to, or conviction of, the commission of a felony offense or a crime of dishonesty, (iii) repeated unexplained or unjustified absences, refusals or failures to carry out the lawful directions of the Board of Directors of the Company (the "Board") or the Chief Executive Officer, or the employee's supervisor, or (iv) willful misconduct that results or is reasonably likely to result in material harm to Cerulean.

C. "*Good Reason*" is defined as: (1) a material diminution in the employee's base compensation; (2) a material diminution in the employee's authority, duties, or responsibilities, provided that a change in scope solely as a result of the Company becoming a subsidiary of another corporation (including a publicly-traded corporation) will not constitute Good Reason; (3) a material change in the geographic location at which the Officer must perform the services; or (4) any other action or inaction that constitutes a material breach by the Company of any agreement under which the employee provides services.

In order to establish a "Good Reason" for terminating employment, an employee must provide written notice to the Company of the existence of the condition giving rise to the Good Reason, which notice must be provided within 90 days of the initial existence of such condition, the Company must fail to cure the condition within 30 days thereafter, and an employee's termination of employment must occur no later than one year following the initial existence of the condition giving rise to Good Reason.

**5. Eligibility for Severance Benefits.** The following employees will *not* be eligible for severance benefits, except to the extent specifically determined otherwise by the Plan Administrator: (1) an employee who is a party to an employment, retention, or other agreement with the Company that provides for severance benefits; (2) an employee who is terminated for Cause; (3) an employee who retires, terminates employment as a result of an inability to perform his duties due to physical or mental disability or dies; (4) an employee who voluntarily terminates his employment, except a termination for Good Reason; (5) an employee who is employed for a specific period of time in accordance with the terms of a written employment agreement; (6) an employee who accepts employment with an acquirer of any of the businesses, operations or assets of the Company or refuses an offer of such employment in a position providing comparable responsibilities and compensation.

**6. Release; Timing of Severance Benefits.** Receipt of any severance benefits under the Plan requires that the covered employee: (1) comply with the provisions of any applicable noncompetition, nonsolicitation, and other obligations to the Company; and (2) execute and deliver a suitable waiver and release under which the covered employee releases and discharges the Company and its affiliates from and on account of any and all claims that relate to or arise out of the employment relationship between the Company and the covered employee, which release shall be provided by the Company to the covered employee on or before his or her last day of employment with the Company (the "*Release*"). To be eligible for the receipt of severance benefits under the Plan, the Release must be executed by the covered employee and any applicable revocation period with respect thereto must lapse within 60 days following the

covered employee's termination of employment. The "Severance Pay" (as defined below) will be paid in a lump sum within 10 business days after the applicable revocation period with respect to such Release lapses. The "Benefits Continuation" (as defined below) will be paid in the amount and at the time such premium payments are made to other participants in the Company's health benefit plans with the same coverage, commencing within 10 business days after the applicable revocation period with respect to such Release lapses. The "Equity Acceleration" (as defined below) shall occur as of the date the covered employee's employment is terminated; provided, however, that (x) the employee may not exercise or dispose of any such otherwise unvested portions of the equity grants until the Release has become binding (as provided above) and (y) provided further that, if the Release does not become binding within such 60 days the portion of the employee's equity grants that became vested or with respect to which the substantial risk of forfeiture lapsed pursuant to the earlier part of this sentence shall expire or be forfeited, as applicable, as of the date of termination from employment.

To the extent that a participant dies following execution of the Release but prior to payment or provision of the Severance Pay, the Benefits Continuation or the Equity Acceleration, such severance benefits shall be provided to the estate of such participant.

The payment and provision of severance benefits under the Plan shall be subject to the terms and conditions set forth in Exhibit A.

**7. Cash Severance.** The cash portion of the severance benefits to be paid ("*Severance Pay*") will be equal to the amount of the covered employee's monthly base salary multiplied by the "Severance Period," as provided in the table below. In calculating the Severance Pay, the "base salary" shall be the base rate of pay as in effect immediately before termination (or prior to the Change of Control, if greater) and exclusive of any bonuses, overtime pay, shift differentials, "adders," any other form of premium pay, or other forms of compensation.

<b>Job title of participant</b>	<b>Severance Period</b>
Senior Vice President and above	Six (6) months + one (1) additional month for each Year of Service (defined below), up to a maximum of nine (9) months
Vice President	Six (6) months

The covered employee's years of service ("*Years of Service*") with the Company are calculated by dividing the total number of days between and including an employee's hire date and termination date by 365 and taking that number to the second decimal point.

**8. Other Severance Benefits.** In addition to the foregoing Severance Pay, the severance benefits under the Plan shall include the following:

A. Company contributions to the cost of COBRA (Consolidated Omnibus Budget Reconciliation Act) coverage on behalf of the covered employee and any applicable dependents for no longer than the Severance Period if the covered employee elects COBRA coverage, and only so long as such coverage continues in force. Such costs shall be determined on the same basis as the Company's contribution to Company-provided health and dental insurance coverage in effect immediately before termination of the covered employee's employment for an active employee with the same coverage elections; provided that if the covered employee commences new employment and is eligible for a new group health plan, the Company's continued contributions toward health and dental coverage shall end when the new employment begins ("*Benefits Continuation*");

B. Full vesting of all of the covered employee's unvested equity grants, other than equity grants with vesting based on performance and/or the achievement of milestones ("*Equity Acceleration*"); and

C. The amount of any bonus for the prior year that was approved but not yet paid to the covered employee at the time of the employee's termination of employment, paid in a manner and timing consistent with the payments to other similarly situated employees and consistent with the requirements of Section 409A of the Code.

**9. Recoupment.** If a covered employee fails to comply with the terms of the Plan, including the provisions of Section 6 above, the Company may require payment to the Company of any Severance Pay, Benefits Continuation or any value upon vesting or exercise of any equity grants the vesting of which was accelerated under the provision for Equity Acceleration that the covered employee has already received to the extent permitted by applicable law and with the "value" determined in the sole discretion of the Plan Administrator. Payment is due in cash or by check within 10 days after the Company provides notice to a covered employee that it is enforcing this provision. Any Severance Pay, Benefits Continuation or Equity Acceleration not yet received will be immediately forfeited.

**10. Withholding.** The Company may withhold from any payment or benefit under the Plan: (1) any federal, state, or local income or payroll taxes required by law to be withheld with respect to such payment; (2) such sum as the Company may reasonably estimate is necessary to cover any taxes for which the Company may be liable and which may be assessed with regard to such payment; and (3) such other amounts as appropriately may be withheld under the Company's payroll policies and procedures from time to time in effect.

#### **11. Plan Administration.**

A. **Plan Administrator.** The Plan Administrator shall be the Board or a Committee thereof designated by the Board (the "Committee"); provided, however, that the Board or such Committee may in its sole discretion appoint a new Plan Administrator to administer the Plan following a Change in Control. The Chief Executive Officer of the Company may be designated by the Board or the Committee as the Plan Administrator

solely for purposes of determining whether any or all part-time employees are eligible to be designated as a covered employee entitled to severance benefits under the Plan. The Plan Administrator shall also serve as the Named Fiduciary of the Plan under ERISA. The Plan Administrator shall be the “administrator” within the meaning of Section 3(16) of ERISA and shall have all the responsibilities and duties contained therein.

The Plan Administrator can be contacted at the following address:

Change in Control Severance Plan Administrator  
c/o Cerulean Pharma Inc.  
840 Memorial Drive, 5<sup>th</sup> Floor  
Cambridge, MA 02139

**B. Decisions, Powers and Duties.** The general administration of the Plan and the responsibility for carrying out its provisions shall be vested in the Plan Administrator. The Plan Administrator shall have such powers and authority as are necessary to discharge such duties and responsibilities which also include, but are not limited to, interpretation and construction of the Plan, the determination of all questions of fact, including, without limit, eligibility, participation and benefits, the resolution of any ambiguities and all other related or incidental matters, and such duties and powers of the plan administration which are not assumed from time to time by any other appropriate entity, individual or institution. The Plan Administrator may adopt rules and regulations of uniform applicability in its interpretation and implementation of the Plan.

The Plan Administrator shall discharge its duties and responsibilities and exercise its powers and authority in its sole discretion and in accordance with the terms of the controlling legal documents and applicable law, and its actions and decisions that are not arbitrary and capricious shall be binding on any employee, and employee’s spouse or other dependent or beneficiary and any other interested parties whether or not in being or under a disability.

**12. Indemnification.** To the extent permitted by law, all employees, officers, directors, agents and representatives of the Company shall be indemnified by the Company and held harmless against any claims and the expenses of defending against such claims, resulting from any action or conduct relating to the administration of the Plan, whether as a member of the Committee or otherwise, except to the extent that such claims arise from gross negligence, willful neglect, or willful misconduct.

**13. Plan Not an Employment Contract.** The Plan is not a contract between the Company and any employee, nor is it a condition of employment of any employee. Nothing contained in the Plan gives, or is intended to give, any employee the right to be retained in the service of the Company, or to interfere with the right of the Company to discharge or terminate the employment of any employee at any time and for any reason. No employee shall have the right or claim to benefits beyond those expressly provided in this Plan, if any. All rights and

claims are limited as set forth in the Plan.

**14. Severability.** In case any one or more of the provisions of this Plan (or part thereof) shall be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect the other provisions hereof, and this Plan shall be construed as if such invalid, illegal or unenforceable provisions (or part thereof) never had been contained herein.

**15. Non-Assignability.** No right or interest of any covered employee in the Plan shall be assignable or transferable in whole or in part either directly or by operation of law or otherwise, including, but not limited to, execution, levy, garnishment, attachment, pledge or bankruptcy.

**16. Integration With Other Pay or Benefits Requirements.** The severance payments and benefits provided for in the Plan are the maximum benefits that the Company will pay to covered employees on a termination of employment following a Change in Control, except to the extent otherwise specifically provided in a separate agreement. To the extent that the Company owes any amounts in the nature of severance benefits under any other program, policy or plan of the Company that is not otherwise superseded by this Plan, or to the extent that any federal, state or local law, including, without limitation, so-called "plant closing" laws, requires the Company to give advance notice or make a payment of any kind to an employee because of that employee's involuntary termination due to a layoff, reduction in force, plant or facility closing, sale of business, or similar event, the benefits provided under this Plan or the other arrangement shall either be reduced or eliminated to avoid any duplication of payment. The Company intends for the benefits provided under this Plan to partially or fully satisfy any and all statutory obligations that may arise out of an employee's involuntary termination for the foregoing reasons and the Company shall so construe and implement the terms of the Plan.

**17. Amendment or Termination.** The Board may amend, modify, or terminate the Plan at any time in its sole discretion; provided, however, that (i) any such amendment, modification or termination made prior to a Change in Control that adversely affects the rights of any covered employee shall be approved by a majority of the Company's Board of Directors, including the Chief Executive Officer, (ii) no such amendment, modification or termination may affect the rights of a covered employee then receiving payments or benefits under the Plan without the consent of such person, and (iii) neither the Board, the Company, any successor to the Company nor the Plan Administrator may amend, modify or terminate the Plan for one year following a Change in Control. The Board intends to review the Plan at least annually.

**18. Governing Law.** The Plan and the rights of all persons under the Plan shall be construed in accordance with and under applicable provisions of ERISA, and the regulations thereunder, and the laws of the Commonwealth of Massachusetts (without regard to conflict of laws provisions) to the extent not preempted by federal law.

**EXHIBIT A**

**Section 409A of the Code**

It is expected that the payments and benefits provided under this Plan will be exempt from the application of Section 409A of the Code, and the guidance issued thereunder (“*Section 409A*”). The Plan shall be interpreted consistent with this intent to the maximum extent permitted and generally, with the provisions of Section 409A. A termination of employment shall not be deemed to have occurred for purposes of any provision of this Plan providing for the payment of any amounts or benefits upon or following a termination of employment (which amounts or benefits constitute nonqualified deferred compensation within the meaning of Section 409A) unless such termination is also a “separation from service” within the meaning of Section 409A and, for purposes of any such provision of this Plan, references to a “termination,” “termination of employment” or like terms shall mean “separation from service”. Neither the participant nor the Company shall have the right to accelerate or defer the delivery of any payment or benefit except to the extent specifically permitted or required by Section 409A.

Notwithstanding the foregoing, to the extent the severance payments or benefits under this Plan are subject to Section 409A, the following rules shall apply with respect to distribution of the payments and benefits, if any, to be provided to participants under this Plan:

A. Each installment of the payments and benefits provided under this Plan will be treated as a separate “payment” for purposes of Section 409A. Whenever a payment under this Plan specifies a payment period with reference to a number of days (e.g., “payment shall be made within 10 days following the date of termination”), the actual date of payment within the specified period shall be in the Company’s sole discretion. Notwithstanding any other provision of this Plan to the contrary, in no event shall any payment under this Plan that constitutes “non-qualified deferred compensation” for purposes of Section 409A be subject to transfer, offset, counterclaim or recoupment by any other amount unless otherwise permitted by Section 409A.

B. Notwithstanding any other payment provision herein to the contrary, if the Company or appropriately-related affiliates become publicly-traded and a covered employee is deemed on the date of termination to be a “specified employee” within the meaning of that term under Code Section 409A(a)(2)(B) with respect to such entity, then each of the following shall apply:

(i) With regard to any payment that is considered “non-qualified deferred compensation” under Section 409A payable on account of a “separation from service,” such payment shall be made on the date which is the earlier of (A) the day following the expiration of the six month period measured from the date of such “separation from service” of the covered employee, and (B) the date of the covered employee death (the “Delay Period”) to the extent required under Section 409A. Upon the expiration of the Delay Period, all payments delayed pursuant to this provision (whether otherwise payable in a single sum or in



installments in the absence of such delay) shall be paid to or for the covered employee in a lump sum, and all remaining payments due under this Plan shall be paid or provided for in accordance with the normal payment dates specified herein; and

(ii) To the extent that any benefits to be provided during the Delay Period are considered “non-qualified deferred compensation” under Section 409A payable on account of a “separation from service,” and such benefits are not otherwise exempt from Section 409A, the covered employee shall pay the cost of such benefits during the Delay Period, and the Company shall reimburse the covered employee, to the extent that such costs would otherwise have been paid by the Company or to the extent that such benefits would otherwise have been provided by the Company at no cost to the covered employee, the Company’s share of the cost of such benefits upon expiration of the Delay Period. Any remaining benefits shall be reimbursed or provided by the Company in accordance with the procedures specified in this Plan.

C. The severance benefits payable hereunder are conditioned on the effectiveness of the Release required under Section 6 of the Plan. Once any statutory revocation period with respect to the Release has expired, the following shall apply:

(i) To the extent any severance benefits to be provided are not “non-qualified deferred compensation” for purposes of Section 409A, then such benefits shall commence upon the first scheduled payment date immediately after the date the Release is executed and no longer subject to revocation (the “Release Effective Date”). The first such cash payment shall include all amounts that otherwise would have been due prior thereto under the terms of this Agreement applied as though such payments commenced immediately upon the termination of covered employee’s employment with the Company, and any payments made after the Release Effective Date shall continue as provided herein. The delayed benefits shall in any event expire at the time such benefits would have expired had such benefits commenced immediately following the termination of covered employee’s employment with the Company.

(ii) To the extent any such severance benefits to be provided are “non-qualified deferred compensation” for purposes of Section 409A, then the Release must become irrevocable within 60 days of the date of termination and benefits shall be made or commence upon the date provided in Section 6, provided that if the 60th day following the termination of Executive’s employment with the Company falls in the calendar year following the calendar year containing the date of termination, the benefits will be made no earlier than the first business day of that following calendar year. The first such cash payment shall include all amounts that otherwise would have been due prior thereto under the terms of this Agreement had such payments commenced immediately upon the termination of Executive’s employment with the Company, and any payments made after the

first such payment shall continue as provided herein. The delayed benefits shall in any event expire at the time such benefits would have expired had such benefits commenced immediately following the termination of Executive's employment with the Company.

D. The Company makes no representations or warranties and shall have no liability to any participant or any other person, other than with respect to payments made by the Company in violation of the provisions of this Plan, if any provisions of or payments under this Plan are determined to constitute deferred compensation subject to Section 409A of the Code but not to satisfy the conditions of that section.

Subsidiaries

Entity

Cerulean Pharma Australia Pty Ltd

Jurisdiction of Incorporation or Organization

Australia

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the use in this Registration Statement on Form S-1 of our report dated March 7, 2014, relating to the consolidated financial statements of Cerulean Pharma Inc. (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the Company's ability to continue as a going concern) appearing in the Prospectus, which is a part of this Registration Statement.

We also consent to the reference to us under the heading "Experts" in such Prospectus.

/s/ Deloitte & Touche LLP

Boston, Massachusetts  
March 7, 2014

March 10, 2014

Lia Der Marderosian

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+1 617 526 5000 (f)  
lia.dermarderosian@wilmerhale.com

**VIA EDGAR SUBMISSION**

Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, NE  
Mail Stop 6010  
Washington, DC 20549-6010

Attention: Jeffrey P. Riedler

Re: Cerulean Pharma Inc.  
Confidential Draft Registration Statement on Form S-1  
Submitted January 30, 2014  
CIK No. 0001401914

Ladies and Gentlemen:

On behalf of Cerulean Pharma Inc. (the "Company"), submitted herewith for filing is a Registration Statement on Form S-1 (the "Registration Statement") relating to the registration under the Securities Act of 1933, as amended, of common stock of the Company.

The Registration Statement is being filed in part to respond to the comments of the staff (the "Staff") of the Securities and Exchange Commission contained in its letter dated February 26, 2014 (the "Comment Letter"), relating to the above referenced Confidential Draft Registration Statement on Form S-1.

Set forth below are the Company's responses to the Staff's comments. The responses set forth below are based upon information provided to Wilmer Cutler Pickering Hale and Dorr LLP by the Company. For convenience, the responses are keyed to the numbering of the comments and the headings used in the Comment Letter. On behalf of the Company, we advise you as follows:

General

1. *Please submit all exhibits as soon as practicable. We may have further comments upon examination of these exhibits.*

Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109

Beijing Berlin Boston Brussels Frankfurt London Los Angeles New York Oxford Palo Alto Waltham Washington

**Response:** The Company acknowledges the Staff's comment and will provide all exhibits as soon as possible.

- Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.*

**Response:** In response to the Staff's request, the Company is providing to the Staff on a supplemental basis copies of all of the written materials that have been presented to potential investors in reliance on Section 5(d) of the Securities Act of 1933 (the "Securities Act"). Such materials were only made available for viewing by such potential investors during the Company's presentation, and potential investors did not retain copies of the materials. The Company further advises the Staff that, to the Company's knowledge, to date, no broker or dealer that is participating or will participate in the Company's initial public offering has published or distributed a research report about the Company in reliance upon Section 2(a)(3) of the Securities Act.

- We note that you submitted a confidential treatment request on January 31, 2014. We will provide any comments on your confidential treatment request and the related disclosure in a separate comment letter.*

**Response:** The Company acknowledges the Staff's comment.

Prospectus Summary – Our Pipeline, page 2

- Please expand your disclosure to describe briefly the primary endpoint that was met in the first part of your two-part Phase 2 open-label IST of CRLX101 for relapsed ovarian cancer.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on page 2 of the Registration Statement.

- Please expand your disclosure to explain briefly what "neoadjuvant" means the first time you use this term in the prospectus.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on pages 2, 11, 62 and 86 of the Registration Statement.

Risks Associated with Our Business, page 3

6. *Please expand the second bullet point in this section to describe the limitations on your ability to secure additional debt financing posed by the restrictions in your loan and security agreement with Lighthouse Capital.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on page 4 of the Registration Statement.

7. *Please expand the second-to-last bullet point in this section to describe briefly the risk that your reliance on third party, investigator sponsored trials could, depending on the conduct of such third parties, jeopardize the validity of the clinical data generated and adversely affect your ability to obtain marketing approval from the FDA or similar regulating bodies in other jurisdictions.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on pages 4 and 30-31 of the Registration Statement.

8. *Please expand the last bullet point in this section to describe the risks posed by the fact that several of your material patents are licensed from third parties rather than owned directly by you.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on page 5 of the Registration Statement.

Risk Factors

Risks Related to our Financial Position and Need for Additional Capital, page 10

9. *Please expand the third risk factor in this section to discuss the going concern uncertainty reflected in the audit opinion issued by Deloitte.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on page 12 of the Registration Statement.

"Clinical drug development involves a lengthy and expensive process..." page 16

10. *We note your disclosure on page 110 that you may seek to conduct clinical trials outside of the United States. Please revise your disclosure to expand this risk factor or include a separate risk factor that highlights this disclosure and discusses any risks the Company may face as a result of conducting clinical trials outside of the United States without an active IND approved by the FDA. For example, you should discuss the possibility that the FDA may not accept the results of such trials and how such lack of acceptance could affect the regulatory approval process.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on pages 18-19 of the Registration Statement.

"Our future success depends on our ability to retain key executives..." page 44

11. *Please expand this risk factor to identify your key employees other than Dr. Fetzer.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on page 46 of the Registration Statement.

Management's Discussion and Analysis of Financial Condition and Results of Operations  
Contractual Obligations and Contingent Liabilities, page 69

12. *You disclose that contracts with contract research organization are not included in the table of contractual obligations and commitments because they are cancellable contracts. The contracts with CROs appear to be required in your research and development and appear to meet the definition of purchase obligations. Please revise your disclosure to include any contracts with CROs or other vendors that meet the definition of purchase obligations. As noted in Item 303(a)(5) of Regulation S-K the tabular presentation may be accompanied by footnotes to describe provisions that create, increase or accelerate obligations, or other pertinent data to the extent necessary for an understanding of the timing and amount of the registrant's specified contractual obligations.*

**Response:** As of December 31, 2013, the Company did not have any agreements with contract research organizations or any other agreements that it believes contain purchase obligations. With respect to the Company's agreements with contract research organizations and clinical trial sponsors, the Company can elect to discontinue work under such agreements at any time with notice, and such agreements do not contain minimum purchase amounts. As a result, the Company is not obligated to purchase goods or services under such agreements. The Company has revised the disclosure on page 72 of the Registration Statement to clarify that certain agreements are not included in the table of contractual obligations because they do not contain purchase obligations.

Critical Accounting Policies and Use of Estimates  
Stock-based Compensation, page 71

13. *Please provide us a discussion of each significant factor contributing to the difference, to the extent that it is significant, between the common stock fair value as of the most recent valuation date and the estimated IPO price.*

**Response:** The Company acknowledges the Staff's comment. Once the Company discloses an estimated offering price range, it will quantitatively and qualitatively disclose



each significant factor contributing to the difference between its most recent valuation and the estimated offering price. The Company has already disclosed the significant factors contributing to differences between each of the previous valuations.

Business, page 84

14. *Please expand your disclosure to briefly explain what investigator sponsored trials are, how this arrangement differs from other clinical trial models, and give a general outline of the typical relationship between a company and its investigator sponsor. In addition, please describe the material terms of each of your arrangements with the investigator sponsors of your trials, including your arrangements with the University of Pennsylvania, Massachusetts General Hospital, and UNC Chapel Hill. In your revised disclosure, please describe:*

- *the nature and scope of any intellectual property transferred or licensed;*
- *each party's material rights and obligations;*
- *the duration of agreement and any termination provisions; and*
- *any material payment provisions.*

*In addition, please file a copy of each of these agreements as an exhibit to your registration statement.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on pages 130-131 of the Registration Statement to provide an explanation of investigator sponsored trials and how such arrangements differ from other clinical trial models and a summary of the terms of the Company's agreements with its investigator sponsors, which terms the Company believes are customary and standard.

In addition, the Company advises the Staff that it has considered Item 601(b)(10) of Regulation S-K and believes that the agreements with its investigator sponsors are not material contracts as defined in Item 601(b)(10). Item 601(b)(10) provides that if an agreement is such as ordinarily accompanies the kind of business conducted by the registrant, it will be deemed to be made in the ordinary course of business, and therefore not required to be filed, unless the agreement is, among other things, one "upon which the registrant's business is substantially dependent." The Company is a biopharmaceutical company and, as part of the ordinary course of its business, it conducts, and relies on third parties to conduct,

clinical trials of its product candidates. As part of its ordinary course of business, the Company has entered into, and plans to continue to enter into, agreements with respect to its clinical trials, including agreements with investigators and clinical research organizations, and considers these agreements to be ones that ordinarily accompany the kind of business conducted by the Company.

In considering the materiality of its clinical trial related agreements, including its investigator sponsored trial agreements, the Company considers several factors, including the impact on the Company's business of a termination of the agreement, the obligations of the Company under the agreement and the amount and timing of payments required under the agreement. Based on its analysis of each of its investigator sponsored trial agreements, the Company has concluded that each such agreement was made in the ordinary course of the Company's business and that its business is not currently substantially dependent on any such agreement. Accordingly, the Company has not filed such agreements as exhibits or separately described the terms of each such agreement.

Product Pipeline

CRLX101 Clinical Development, page 98

15. *Please expand your description of each of the completed clinical trials of CRLX101 to disclose, if you have not already done so, the specific clinical endpoints of such trials and the extent to which actual results compared to these endpoints. In addition, if any of the trials were designed to test for statistical significance, please disclose whether statistical significance was observed, provide the relevant p-values for your results and include an explanation in layman's terms of p-values generally. If statistical significance was not demonstrated, please explain why.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on page 102 of the Registration Statement.

In addition, the Company advises the Staff that, with respect to each completed clinical trial of CRLX101 for which the protocol contained clinical endpoints, it has disclosed in the Registration Statement such endpoints and whether such endpoints were achieved with statistical significance. With respect to the Phase 1/2a CRLX101 clinical trial, the protocol contained objectives as opposed to endpoints and was not designed to measure statistical significance. The Company has revised the disclosure on page 101 of the Registration Statement to state the primary objectives for this Phase 1/2a clinical trial and the achievement of such objectives.

CRLX101 Phase 1/2a Clinical Trial, page 98

16. *Please expand your discussion of your Phase 1/2a clinical trial to describe any excessive toxicity or treatment-related adverse events that resulted in the death of any patients in the Phase 2a cohort.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on page 102 of the Registration Statement.

CRLX301 Preclinical and IND-Enabling Data, page 109

17. *Please expand your description of your preclinical trials of CRLX301 in animal models to discuss the statistical significance of your results, including mention of p-values.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on page 115 of the Registration Statement.

18. *Please also expand your description of your preclinical trials of CRLX301 on page 109:*

- *to state whether and to what extent the results of the mouse xenograft model described and illustrated in the graphs on page 109 are representative of the other studies and models discussed; and*
- *to disclose the size of the PK rat circulation study and the toxicology studies in rats and dogs.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on pages 113, 114 and 115 of the Registration Statement.

Consolidated Financial Statements

Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Deficit, page F-5

19. *Please revise your financial statement to disclose the dollar amount per share of each issuance as required by ASC 915-215-45-1b.*

**Response:** In response to the Staff's comment, the Company has revised the disclosure on pages F-5 and F-6 of the Registration Statement.

3. Net Loss Per Share Attributable to Common Stockholders, page F-13

20. *Refer to the reconciliation of the denominator for the pro forma loss per share in the table on page F-14. We cannot locate where you make an adjustment to give effect of the conversion of convertible notes payable in arriving at the pro forma weighted-average number of shares outstanding. Please explain.*

**Response:** The Company advises the Staff that the adjustment to give effect of the conversion of the convertible notes payable in arriving at the pro forma weighted-average number of shares outstanding is included in the adjusted shares. The Company has clarified the disclosure on page F-13 accordingly.

If you have any further questions or comments, or if you require additional information, please contact the undersigned by telephone at (617) 526-6982 or electronically at [lia.dermarderosian@wilmerhale.com](mailto:lia.dermarderosian@wilmerhale.com). Thank you for your assistance.

Very truly yours,

/s/ Lia Der Marderosian

Lia Der Marderosian

cc: Oliver S. Fetzer, Ph.D.  
Christopher D. T. Guiffre

Lia Der Marderosian

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March 10, 2014

BY ELECTRONIC SUBMISSION

Securities and Exchange Commission  
100 F Street, N.E.  
Washington, DC 20549

Re: Cerulean Pharma Inc.  
Registration Statement on Form S-1

Ladies and Gentlemen:

Submitted herewith for filing on behalf of Cerulean Pharma Inc. (the "Company") is a Registration Statement on Form S-1 relating to the registration under the Securities Act of 1933, as amended (the "Securities Act"), of shares of Common Stock of the Company with a proposed maximum aggregate offering price of \$75,000,000.

This filing is being effected by direct transmission to the Commission's EDGAR System. On March 7, 2014, in anticipation of this filing, the Company caused the filing fee of \$9,660.00 to be wire transferred to the Commission's account at US Bank in St. Louis, Missouri.

The Registration Statement relates to the Company's initial public offering of its Common Stock. It is the intent of the Company and the managing underwriters of the proposed offering to have the Registration Statement declared effective as early as possible.

Acceleration requests may be made orally, and the Company and the managing underwriters of the proposed offering have authorized us to represent on their behalf that they are aware of their obligations under the Securities Act with respect thereto.

Please contact the undersigned at 617-526-6982 or Brett Budzinski at 617-526-6415 with any questions or comments you may have regarding this filing.

Sincerely,

/s/ Lia Der Marderosian

Lia Der Marderosian

Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109

Beijing Berlin Boston Brussels Frankfurt London Los Angeles New York Oxford Palo Alto Waltham Washington