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As filed with the Securities and Exchange Commission on January 13, 2012

Registration No. 333-177677

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 3
TO
FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

VERASTEM, INC.

(Exact name of registrant as specified in its charter)

Delaware	**2834**	**27-3269467**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

215 First Street, Suite 440
Cambridge, MA 02142
(617) 252-9300
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Christoph Westphal, M.D., Ph.D.
President and Chief Executive Officer
Verastem, Inc.
215 First Street, Suite 440
Cambridge, Massachusetts 02142
(617) 252-9300
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Boston, Massachusetts 02199
(617) 951-7000

Approximate date of commencement of proposed sale to 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, check the following box. o

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. o

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. o

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. o

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

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	$56,925,000	$6,524

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

(2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price. A registration fee of $5,730 has been paid previously pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price. The difference of $794 is being paid with this filing.

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 preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS Subject to Completion January 13, 2012

4,500,000 shares

Common Stock

This is the initial public offering of our common stock. No public market currently exists for our common stock. We are offering all of the shares of common stock offered by this prospectus. We expect the public offering price to be between $9.00 and $11.00 per share.

We have applied to list our common stock on The NASDAQ Global Market under the symbol "VSTM."

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.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per share	Total
Public offering price	$	$
Underwriting discounts and commissions	$	$
Proceeds to Verastem, before expenses	$	$

Certain of our existing stockholders and their affiliated entities have indicated an interest in purchasing an aggregate of up to approximately $16.3 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, these stockholders may determine to purchase fewer shares than they indicate an interest in purchasing or not to purchase any shares in this offering. In addition, the underwriters could determine to sell fewer shares to these stockholders than the stockholders indicate an interest in purchasing or not to sell any shares to these stockholders.

The underwriters may also purchase up to an additional 675,000 shares of our common stock at the public offering price, less the underwriting discounts and commissions payable by us, to cover over-allotments, if any, within 30 days from the date of this prospectus. If the underwriters exercise this option in full, the total underwriting discounts and commissions will be $ and our total proceeds, after underwriting discounts and commissions but before expenses, will be $.

The underwriters are offering the common stock as set forth under "Underwriting." Delivery of the shares will be made on or about , 2012.

UBS Investment Bank **Leerink Swann**

Lazard Capital Markets

Oppenheimer & Co.

Rodman & Renshaw, LLC

We have not authorized anyone to provide any information other than that contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where such offers and sales are permitted. The information in this prospectus or any free writing prospectus is accurate only as of its date, regardless of its time of delivery 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.

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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 and our financial statements and the related notes appearing at the end of this prospectus, before making an investment decision.

OUR BUSINESS

We are a biopharmaceutical company focused on discovering and developing proprietary small molecule drugs targeting cancer stem cells along with proprietary companion diagnostics. A cancer stem cell is a particularly aggressive type of tumor cell, resistant to conventional cancer therapy, that we believe is an underlying cause of tumor recurrence and metastasis. We also believe that the presence of cancer stem cells in tumors may be a key reason for the ultimate failure of many existing chemotherapeutics and other cancer therapies to achieve a durable clinical response. Building on discoveries by our scientific co-founders, Robert Weinberg, Ph.D., Eric Lander, Ph.D., and Piyush Gupta, Ph.D., published in the peer reviewed scientific journal *Cell*, we use our proprietary technology to create a stable population of cancer stem cells to screen for and identify small molecule compounds that target cancer stem cells. We believe that our technology and approach provide an opportunity to develop a next generation of oncology therapeutics addressing the large unmet medical need of patients with many types of cancers.

THE PROBLEM

Cancer is one of the world's most serious health problems and the second most common cause of death in the United States after heart disease. Current treatments for cancer include surgery, radiation therapy, chemotherapy, hormone therapy and targeted therapy. According to estimates by the National Institutes of Health, in the United States in 2010, the direct medical costs of cancer of all types exceeded $100 billion. IMS Health estimates that in the United States in 2010, approximately $22 billion was spent on drugs to treat cancer, representing the largest class of drug spending in the United States. Despite years of intensive research and clinical use, current treatments often fail to cure cancer. Cancer patients who relapse often develop metastatic disease. Metastatic disease is the cause of more than 90% of cancer deaths.

We believe that cancer stem cells, or CSCs, which are also sometimes referred to as tumor-initiating cancer cells, are responsible for the initiation, metastasis and recurrence of many cancers and may be a key reason for the ultimate failure of many current therapies to achieve a durable clinical response. CSCs have the ability to:

–> move freely and proliferate without attachment to other cells or surfaces;

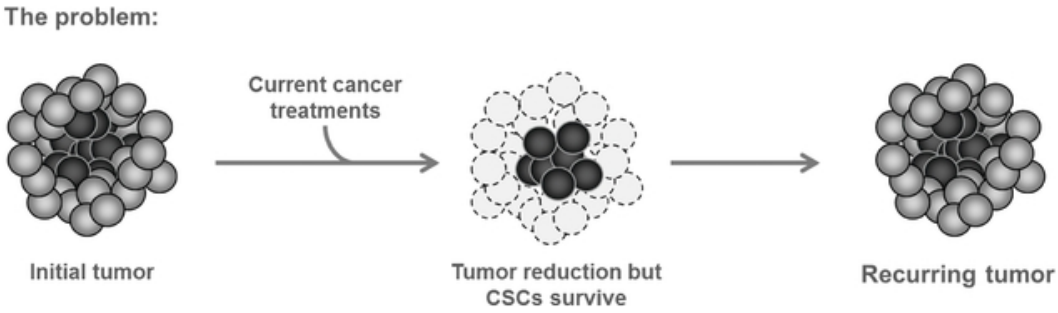
–> initiate a tumor;

–> self-renew;

–> produce other cancer cell types; and

–> resist many current cancer treatments.

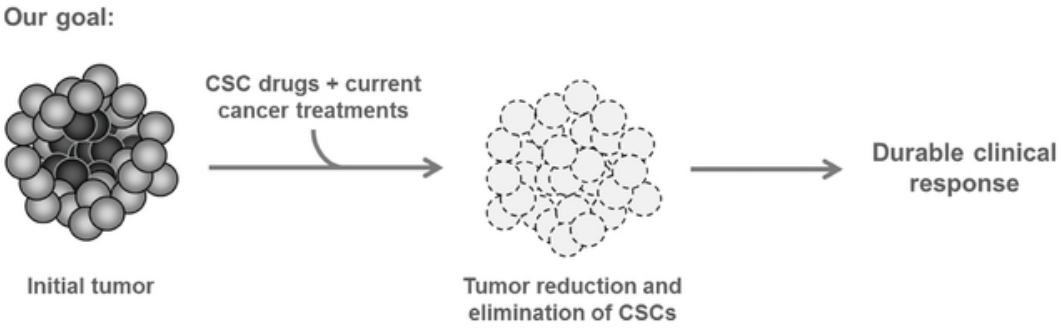
CSCs have been identified in many types of cancer, including breast, pancreatic, colon, brain, lung and leukemia. As illustrated in the figure below, while current treatments may succeed at initially decreasing tumor burden, they may leave behind a population of CSCs that can regenerate tumors.



OUR SOLUTION

Our solution is to discover and develop a next generation of oncology therapeutics targeting CSCs along with companion diagnostics. We believe that by developing therapeutics that target CSCs we can address the problem of cancer recurrence and metastasis so as to deliver a durable clinical response.

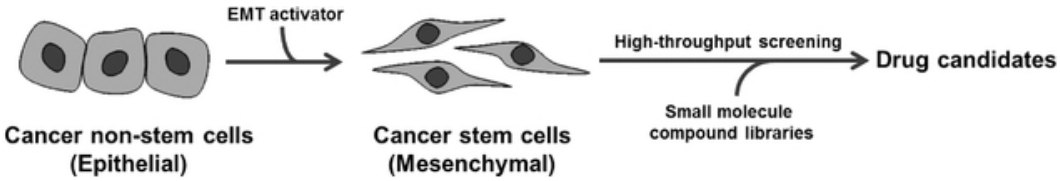
Our scientific co-founders at the Whitehead Institute for Biomedical Research, an affiliate of the Massachusetts Institute of Technology, or MIT, and the Broad Institute, an affiliate of MIT and Harvard University, made discoveries that link the epithelial-to-mesenchymal transition, or EMT, to the emergence of CSCs. This transition involves the transformation of one type of cancer cell into a more aggressive and drug resistant type of cancer cell. Our solution utilizes proprietary technology based on these discoveries along with rapid and automated assays, referred to as high-throughput screening, to identify drugs targeting CSCs and develop companion diagnostics. To achieve a durable clinical response, we believe that it may be necessary to kill both CSCs and other types of cancer cells in a tumor, as illustrated in the figure below, either with a combination of current cancer treatments and CSC-targeted drugs or a single therapeutic found to target both cancer cell populations.



Our proprietary technology

A persistent problem in the discovery of drugs targeting CSCs is the difficulty of isolating large numbers of CSCs. Without such large numbers, the discovery of drugs targeting CSCs using high-throughput screening is extremely difficult. Moreover, when CSCs are isolated, they typically do not remain stable in culture. Instead, over a short period of time, CSCs convert into other types of cancer cells. To address this problem, our scientific co-founders developed proprietary technology based on the EMT process to create a stable population of CSCs that are suitable for use in high-throughput screening of small molecule compounds. We license this proprietary technology from the Whitehead Institute.

To identify compounds that are selective for CSCs, we grow cancer non-stem cells in the laboratory and then induce the EMT process to create a stable population of CSCs. As illustrated in the figure below, we then screen compounds to assess their ability to kill the CSCs. Because these CSCs are stable in culture, the screening process can be conducted using high-throughput technology on a large number and wide variety of small molecule compound libraries. These compound libraries include new chemical entities, approved drugs and compounds that are in preclinical and clinical development. We then profile the compounds that are identified as targeting CSCs using additional assays to identify suitable clinical candidates.



OUR PRODUCT CANDIDATES AND COMPANION DIAGNOSTICS

Using our proprietary technology, we have identified a pipeline of small molecule compounds with the potential to target CSCs. Our most advanced product candidates are VS-507, VS-4718 and VS-5095. We are currently evaluating VS-507, VS-4718 and VS-5095 in preclinical studies as potential therapies for breast and other cancers. We believe that these compounds may be especially beneficial as therapeutics in aggressive cancers with a high percentage of CSCs, such as triple negative breast cancer, or TNBC. TNBC is a type of breast cancer in which a high percentage of CSCs has been identified and that has a poorer prognosis and lower overall survival rate than other types of breast cancer. We also are currently evaluating additional proprietary product candidates in preclinical studies for their use in breast and other cancers.

Our scientific co-founders identified VS-507 as a drug candidate for killing breast cancer stem cells and published their research in *Cell* in 2009. This study included an analysis of the effect of VS-507 on TNBC cell lines. We believe that the targeted action of VS-507 on CSCs is effected through the inhibition of a network of proteins, known as the Wnt/beta-catenin cell signaling pathway, which Dr. Weinberg described in 2011 in *Cell* as critical for the development and maintenance of CSCs. Additional third-party published research has reported that VS-507's activity may be mediated through the blockade of the Wnt/beta-catenin cell signaling pathway. In mouse models of breast cancer, VS-507 treatment decreased biophysical or biochemical markers, referred to as biomarkers, of CSCs. In contrast, treatment in the same model with a standard chemotherapeutic agent, paclitaxel, increased biomarkers of CSCs. Assuming successful completion of preclinical studies, we expect to file an investigational new drug application, or IND, with the U.S. Food and Drug Administration, or FDA, in late 2012 to initiate a Phase 1 clinical trial of VS-507.

We identified the CSC-targeted activity of VS-4718 and VS-5095 using our proprietary technology. In preclinical testing, these compounds were found to be potent and selective inhibitors of Focal Adhesion Kinase, or FAK, a protein which is involved in cell adhesion and motility. FAK expression is greater in many tumor types compared to normal tissue, particularly in cancers that have a high invasive and metastatic capability. In preclinical mouse models, both VS-4718 and VS-5095 demonstrated good oral bioavailability and pharmacokinetic and pharmacodynamic properties and reduced both primary tumor growth and metastatic burden. We expect to file an IND with the FDA in early 2013 to initiate a Phase 1 clinical trial of one of VS-4718 or VS-5095.

An important element of our business strategy is the development and use of proprietary, companion diagnostics in connection with the development of our therapeutic drug candidates. CSCs are often characterized by a distinctive set of biomarkers, which we believe may be a key to identifying patients with tumors that are likely to respond to therapies targeting CSCs. We plan to use diagnostics, based

on these biomarkers, as part of a personalized medicine approach to identify patients with aggressive tumors that have a high percentage of CSCs. We also believe that these diagnostics may be used to monitor patients' progress on therapy and aid physicians' ongoing treatment decisions. In addition, we expect that our use of proprietary diagnostics may accelerate the clinical development process for our drug candidates by enabling smaller, targeted trials and providing early, objective signals of drug activity.

OUR STRATEGY

Our goal is to build a leading biopharmaceutical company focused on the discovery, development and, ultimately, commercialization of novel drugs and companion diagnostics targeting CSCs. Key elements of our strategy to achieve this goal are:

–> continue to screen and identify small molecules that target CSCs;

–> in-license rights to additional compounds to expand our pipeline of candidates that target CSCs;

–> rapidly advance our drug candidates into clinical development;

–> develop diagnostics for therapeutic products targeting CSCs;

–> collaborate selectively to augment and accelerate development and commercialization; and

–> maintain scientific leadership in the CSC field.

OUR MANAGEMENT TEAM AND SCIENTIFIC CO-FOUNDERS AND ADVISORS

Our management team includes our President and Chief Executive Officer, Chairman and co-founder Christoph Westphal, M.D., Ph.D., our Chief Operating Officer, Robert Forrester, and our Vice President, Head of Research, Jonathan Pachter, Ph.D.

–> Dr. Westphal has been involved in founding a number of biotechnology companies as chief executive officer, including Sirtris Pharmaceuticals, Inc., which was acquired by GlaxoSmithKline plc in 2008, as well as Alnylam Pharmaceuticals, Inc. and Momenta Pharmaceuticals, Inc. Dr. Westphal also co-founded Alnara Pharmaceuticals, Inc., which was acquired by Eli Lilly and Co. in 2010.

–> Mr. Forrester has held executive level positions at both private and public life science companies, including Forma Therapeutics, Inc., CombinatoRx, Inc., now Zalicus Inc., and Coley Pharmaceutical Group, Inc., which was acquired by Pfizer Inc. in 2007.

–> Dr. Pachter has over 20 years of experience in leading the discovery of small molecule and monoclonal antibody therapeutics for the treatment of cancer, most recently as the Senior Director of Cancer Biology at OSI Pharmaceuticals Inc., which was acquired by Astellas Pharma Inc. in 2010.

Our management team is supported by our scientific advisory board comprised of leading academic and industry scientists. Our scientific advisory board consists of:

Scientific advisory board

Robert Weinberg, Ph.D. *Scientific co-founder*	Founding Member of the Whitehead Institute for Biomedical Research, Professor of Biology at the Massachusetts Institute of Technology and recipient of the 1997 National Medal of Science
Eric Lander, Ph.D. *Scientific co-founder*	Founding Director of the Broad Institute, Professor of Biology at the Massachusetts Institute of Technology and Professor of Systems Biology at Harvard Medical School

Scientific advisory board

Piyush Gupta, Ph.D. *Scientific co-founder*	Member of the Whitehead Institute for Biomedical Research and Assistant Professor of Biology at the Massachusetts Institute of Technology
Julian Adams, Ph.D.	President of Research and Development of Infinity Pharmaceuticals, Inc., former Senior Vice President of Drug Discovery and Development of Millennium Pharmaceuticals, Inc. and co-inventor and co-developer of Velcade
José Baselga, M.D., Ph.D.	Chief of Hematology and Oncology at Massachusetts General Hospital, Associate Director of the Massachusetts General Hospital Cancer Center and Professor of Medicine at Harvard Medical School
George Daley, M.D., Ph.D.	Professor of Hematology and Oncology and Director of the Stem Cell Transplantation Program at Children's Hospital and Professor of Biological Chemistry and Molecular Pharmacology at Harvard Medical School
Peter Elliott, Ph.D.	Former Senior Vice President and Head of Research and Development of Sirtris Pharmaceuticals, Inc., former Vice President of Pharmacology and Drug Development of Millennium Pharmaceuticals, Inc. and co-developer of Velcade
Daniel Haber, M.D., Ph.D.	Director of the Massachusetts General Hospital Cancer Center and Professor of Medicine at Harvard Medical School
Joseph (Yossi) Schlessinger, Ph.D.	Chairman and Professor in the Department of Pharmacology at Yale School of Medicine
Phillip A. Sharp, Ph.D.	Institute Professor at the David H. Koch Institute for Integrative Cancer Research at the Massachusetts Institute of Technology and recipient of the 1993 Nobel Prize in Medicine and Physiology
Roger Tung, Ph.D.	President and Chief Executive Officer of Concert Pharmaceuticals, Inc., former Vice President of Drug Discovery of Vertex Pharmaceuticals, Inc. and co-inventor of Lexiva and Agenerase
Christopher Walsh, Ph.D.	Hamilton Kuhn Professor in the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School
Eric Winer, M.D.	Director of the Breast Oncology Center at the Dana Farber Cancer Institute and Professor of Medicine at Harvard Medical School

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 inception and will need substantial additional funding. To date, we have not generated any revenues. We expect to incur losses for the

foreseeable future and may never achieve profitability. Our net loss was $7.7 million for the nine months ended September 30, 2011 and $784,000 for the period from August 4, 2010 (inception) to December 31, 2010. As of September 30, 2011, we had a deficit accumulated during the development stage of $8.5 million.

–> We have a short operating history. All of our product candidates are still in preclinical development, and we have not received marketing approval from the FDA or any other regulatory authority for any product candidate.

–> Our approach to the discovery and development of product candidates that target CSCs is unproven. Our focus on using our proprietary EMT technology to screen for and identify product candidates targeting CSCs may not result in the discovery and development of commercially viable drugs to treat cancer. Research on CSCs is an emerging field and, consequently, there is ongoing debate regarding the existence of CSCs, whether the appropriate nomenclature to refer to these cells is cancer stem cells, tumor-initiating cells or another term and the importance of these cells as an underlying cause of tumor recurrence and metastasis. We do not believe that any drugs that target CSCs have been successfully developed to date for the treatment of cancer.

–> We may be unable to acquire or in-license from third parties any compounds or product candidates that we identify using our proprietary EMT technology or otherwise.

–> Clinical trials of our product candidates may not be successful. If we are unable to obtain required marketing approvals for, commercialize, obtain and maintain patent protection for or gain sufficient market acceptance by physicians, patients and healthcare payors of our product candidates, or experience significant delays in doing so, our business will be materially harmed and our ability to generate revenue will be materially impaired.

–> If we are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience significant delays in doing so, we may not realize the full commercial potential of our therapeutics.

–> We may depend on collaborations with third parties for the development and commercialization of our product candidates. If those collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

OUR CORPORATE INFORMATION

We were incorporated under the laws of the State of Delaware in August 2010. Our principal executive offices are located at 215 First Street, Suite 440, Cambridge, Massachusetts 02142 and our telephone number is (617) 252-9300. Our website address is www.verastem.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

In this prospectus, unless otherwise stated or the context otherwise requires, references to "Verastem," "we," "us," "our" and similar references refer to Verastem, Inc. The Verastem name and logo are our trademarks. The other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

The offering

Common stock offered by us	4,500,000 shares
Common stock to be outstanding after this offering	19,234,116 shares
Over-allotment option	The underwriters have an option for a period of 30 days to purchase up to 675,000 additional shares of our common stock to cover over-allotments.
Use of proceeds	We intend to use the net proceeds from this offering for preclinical and clinical development of our lead product candidates, discovery, research and preclinical studies of our other product candidates, additional compounds and companion diagnostics and other general corporate purposes.
Risk factors	You should read the "Risk factors" section starting on page 11 of 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	VSTM

The number of shares of our common stock to be outstanding after this offering is based on 2,993,322 actual shares of our common stock outstanding as of December 31, 2011, including 1,434,734 shares of unvested restricted stock subject to repurchase by us, and 11,740,794 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.

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

–> 405,141 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2011 at a weighted-average exercise price of $0.75 per share;

–> 30,101 additional shares of our common stock available for future issuance as of December 31, 2011 under our 2010 equity incentive plan;

–> 600,000 shares of our common stock issuable pursuant to restricted stock units granted, effective upon the closing of this offering, under our 2012 incentive plan;

–> 2,828,571 additional shares of our common stock that will be available for future issuance, as of the closing of this offering, under our 2012 incentive plan; and

–> 142,857 shares of our common stock issuable upon exercise of a warrant, with an exercise price equal to the average closing price of our common stock during the five days preceding the date of issuance, that we have agreed to issue to Poniard Pharmaceuticals, Inc. upon achievement of a milestone pursuant to a license agreement.

Unless otherwise indicated, all information in this prospectus assumes:

- no exercise of the outstanding options or the warrant described above and no issuance of shares under the restricted stock units described above;
- no exercise by the underwriters of their option to purchase up to 675,000 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 11,740,794 shares of our common stock upon the closing of this offering; and
- the restatement of our amended and restated certificate of incorporation and the amendment and restatement of our bylaws upon the closing of this offering.

In addition, unless otherwise indicated, all information in this prospectus gives effect to the one-for-3.5 reverse stock split of our common stock that was effected on January 10, 2012.

Certain of our existing stockholders, including our principal stockholders Advanced Technology Ventures VIII, L.P., Bessemer Venture Partners, CHP III, L.P., Longwood Fund, LP, and MPM Bioventures V, LP, and their affiliated entities, have indicated an interest in purchasing an aggregate of up to approximately $16.3 million in shares of our common stock in this offering at the initial public offering price. Assuming an initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, these stockholders would purchase an aggregate of up to approximately 1,628,500 of the 4,500,000 shares in this offering based on these indications of interest. However, because indications of interest are not binding agreements or commitments to purchase, these stockholders may determine to purchase fewer shares than they indicate an interest in purchasing or not to purchase any shares in this offering. In addition, the underwriters could determine to sell fewer shares to these stockholders than the stockholders indicate an interest in purchasing or not to sell any shares to these stockholders.

Summary financial information

You should read the following summary financial data together with our financial statements and the related notes appearing at the end of this prospectus and the "Selected financial data" and "Management's discussion and analysis of financial condition and results of operations" sections of this prospectus. We have derived the statements of operations data for the period from August 4, 2010 (inception) to December 31, 2010 from our audited financial statements included in this prospectus. We have derived the statements of operations data for the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011 and the balance sheet data as of September 30, 2011 from our unaudited financial statements included in this prospectus. The unaudited financial data include, in the opinion of our management, all adjustments, consisting only of normal recurring adjustments, that are necessary for a fair presentation of our financial position and results of operations for these periods. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period, and our results for any interim period are not necessarily indicative of results to be expected for a full fiscal year.

Statement of operations data:	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
	(in thousands, except per share data)		
Operating expenses:			
Research and development	$ 400	$ 5,483	$ 5,883
General and administrative	384	2,195	2,579
Total operating expenses	784	7,678	8,462
Operating loss	(784)	(7,678)	(8,462)
Net loss	$ (784)	$ (7,678)	$ (8,462)
Accretion of preferred stock	(2)	(18)	(20)
Net loss applicable to common stockholders	$ (786)	$ (7,696)	$ (8,482)
Net loss per share applicable to common stockholders—basic and diluted	$ (0.91)	$ (6.27)	$ (7.70)
Weighted-average number of common shares used in net loss per share applicable to common stockholders—basic and diluted	850	1,226	1,097
Pro forma net loss per share applicable to common stockholders—basic and diluted	$ (0.60)	$ (1.33)	
Weighted-average number of common shares used in pro forma net loss per share applicable to common stockholders—basic and diluted	1,325	5,850	

Pro forma basic and diluted net loss per common share is calculated assuming the automatic conversion of all outstanding shares of our preferred stock, excluding shares of our series C preferred stock that we issued and sold in November 2011.

The pro forma balance sheet data set forth below gives effect to:

–> our issuance and sale in November 2011 of an aggregate of 9,067,825 shares of our series C preferred stock at a price per share of $2.25 for an aggregate purchase price of $20.4 million; and

–> the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, into an aggregate of 11,740,794 shares of our common stock upon the closing of this offering.

The pro forma as adjusted balance sheet data set forth below give further effect to our issuance and sale of 4,500,000 shares of our common stock in this offering at an assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	As of September 30, 2011		
Balance sheet data:	**Actual**	**Pro forma**	**Pro forma as adjusted**
	(in thousands)		
Cash and cash equivalents	$ 41,421	$ 61,824	$ 101,574
Working capital	39,419	59,822	99,572
Total assets	42,364	62,767	102,517
Redeemable convertible preferred stock	47,878	—	—
Deficit accumulated during the development stage	(8,462)	(8,462)	(8,462)
Total stockholders' (deficit) equity	(7,639)	60,642	100,392

Risk factors

Investing in our common stock involves a high degree of risk. Before investing in our common stock, you should consider carefully the risks described below, together with the other information contained in this prospectus, including our 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 future growth prospects could be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

RISKS RELATED TO OUR FINANCIAL POSITION AND NEED FOR ADDITIONAL CAPITAL

We have incurred significant losses since our inception. We expect to incur losses for the foreseeable future and may never achieve or maintain profitability.

Since inception, we have incurred significant operating losses. Our net loss was $7.7 million for the nine months ended September 30, 2011 and $784,000 for the period from August 4, 2010 (inception) to December 31, 2010. As of September 30, 2011, we had a deficit accumulated during the development stage of $8.5 million. To date, we have not generated any revenues and have financed our operations through private placements of our preferred stock. We have devoted substantially all of our efforts to research and development. We have not initiated clinical development of any product candidates and expect that it will be many years, if ever, before we have a product candidate ready for commercialization. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. The net losses we incur may fluctuate significantly from quarter to quarter. We anticipate that our expenses will increase substantially if and as we:

–> continue our research and preclinical development of our product candidates;

–> seek to identify additional product candidates that target cancer stem cells, or CSCs;

–> acquire or in-license other products and technologies;

–> initiate clinical trials for our product candidates;

–> seek marketing approvals for our product candidates that successfully complete clinical trials;

–> ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;

–> maintain, expand and protect our intellectual property portfolio;

–> 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.

To become and remain profitable, we must develop and eventually commercialize a product or products with significant market potential. This will require us to be successful in a range of challenging activities, including completing preclinical testing and clinical trials of our product candidates, obtaining marketing approval for these product candidates and manufacturing, marketing and selling those products for which we may obtain marketing approval. We may never succeed in these activities and, even if we do, may never generate revenues that are significant or large enough to achieve profitability. We are currently only in the preclinical testing stages for our most advanced product candidates and have not yet completed formulation development of any of our lead product candidates, VS-507, VS-4718 and VS-5095. 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 decrease the value of the company and could impair our ability to raise capital, maintain our research and development efforts, expand our business or continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

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

We are an early stage company. We commenced active operations in the second half of 2010. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, acquiring and developing our technology, identifying potential product candidates and undertaking preclinical studies of our most advanced product candidates. All of our product candidates are still in preclinical development. We have not yet demonstrated our ability to initiate or successfully complete any clinical trials, including large-scale, pivotal clinical trials, 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. It takes about ten to 15 years to develop one new medicine from the time it is discovered to when it is available for treating patients. 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.

In addition, as a new business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to transition from a company with a research focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

We will need substantial additional funding. If we are unable to raise capital when needed, we would 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 continue the research and development and later initiate clinical trials of, and seek marketing approval for, our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. 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 would be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

We expect that the net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 48 months. Our future capital requirements will depend on many factors, including:

–> the scope, progress, results and costs of compound discovery, preclinical development, laboratory testing and clinical trials for our product candidates;

–> the extent to which we acquire or in-license other products and technologies;

–> the costs, timing and outcome of regulatory review of our product candidates;

–> the costs of future commercialization activities, including product sales, marketing, manufacturing and distribution, for any of our product candidates for which we receive marketing approval;

–> revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval;

–> the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims; and

–> our ability to establish collaborations on favorable terms, if at all.

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 marketing 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 many 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.

Raising additional capital may cause dilution to our stockholders, including purchasers of common stock in this offering, restrict our operations or require us to relinquish rights to our 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 equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. 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 will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise additional funds through collaborations, strategic alliances 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 to 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.

RISKS RELATED TO THE DISCOVERY, DEVELOPMENT AND COMMERCIALIZATION OF OUR PRODUCT CANDIDATES

Our approach to the discovery and development of product candidates that target CSCs is unproven, and we do not know whether we will be able to develop any products of commercial value.

Our scientific approach focuses on using proprietary technology to create a stable population of CSCs in the laboratory that we then use to screen for and identify product candidates targeting these CSCs. Research on CSCs is an emerging field and, consequently, there is ongoing debate regarding the existence of CSCs, whether the appropriate nomenclature to refer to these cells is cancer stem cells, tumor-initiating cells or another term and the importance of these cells as an underlying cause of tumor recurrence and metastasis.

Although there is general consensus that some cancer cells have tumor-initiating capacity, there also is some debate in the scientific community regarding the defining characteristics of these cells, which we call CSCs, and the origin of these cells. Some believe that normal adult stem cells mutate and transform into CSCs. Others believe that all cancer cells have tumor-initiating capabilities, these capabilities cannot be attributed to a factor intrinsic to a particular cell and, therefore, a definitive CSC cannot be isolated or targeted. We believe that the discovery by our scientific co-founders of the link between the epithelial-to-mesenchymal transition, or EMT, and the emergence of cancer stem cells is one way a cancer cell can transition to a CSC, but this view is not universally accepted.

Even if our beliefs regarding the existence, characteristics and function of CSCs are correct, any drugs that we develop may not effectively target CSCs. We do not believe that any drugs that target CSCs have been successfully developed to date for the treatment of cancer. If we are able to develop a drug that targets CSCs in preclinical studies, we may nonetheless not succeed in demonstrating safety and efficacy of the drug in human clinical trials. Our focus on using our proprietary technology to screen for and identify product candidates targeting CSCs may not result in the discovery and development of commercially viable drugs to treat cancer.

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

A key element of our strategy is to identify and test additional compounds that target CSCs in a variety of different types of cancer. A significant portion of the research that we are conducting involves new compounds, new uses of existing compounds and new and unproven drug discovery methods, including our proprietary technology. The drug discovery that we are conducting using our EMT technology may not be successful in identifying compounds that are useful in treating cancer. Our research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development for a number of reasons, including:

–> the research methodology used may not be successful in identifying potential product candidates; 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.

In particular, because our EMT technology induces the EMT process to create a stable population of CSCs, it is possible that these stable CSCs may not react in precisely the same manner as naturally occurring CSCs when treated with a particular product candidate. As a result, a product candidate that shows initial promise in targeting our stable population of CSCs may not have the same effect on tumors with naturally occurring CSCs.

Research programs to identify new product candidates require substantial technical, financial and human resources. We may choose to focus our efforts and resources on a potential product candidate that ultimately proves to be unsuccessful.

If we are unable to identify suitable compounds for preclinical and clinical development, we will not be able to obtain product revenues in future periods, which likely would result in significant harm to our financial position and adversely impact our stock price.

We may not be successful in obtaining necessary rights to compounds and product candidates for our development pipeline through acquisitions and in-licenses.

Because we are screening a range of compounds, including compounds with proprietary rights held by third parties, for their activity against CSCs, the growth of our business will depend in significant part on our ability to acquire or in-license rights to these compounds. However, we may be unable to acquire or in-license any compounds or product candidates from third parties that we identify using our proprietary EMT technology or otherwise. The licensing and acquisition of proprietary compounds is a competitive area, and a number of more established companies are also pursuing strategies to license or acquire compounds and product candidates that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities.

For example, although the Broad Institute has granted us a right of first negotiation for specified compounds and other intellectual property owned by the Broad Institute, we may be unable to negotiate a license within the specified time frame. If we are unable to do so, the Broad Institute may offer the intellectual property to other parties. In addition, the Whitehead Institute and affiliated parties have retained the right to use the EMT technology that we license from it for research, teaching and educational purposes and could seek to license to third parties any intellectual property rights that it discovers using the EMT technology while pursuing these purposes. Pursuant to our drug discovery platform license agreement with the Whitehead Institute, we will have an opportunity, subject to the Whitehead Institute's obligations under any third-party research funding agreements, to negotiate a license to any such intellectual property under the drug discovery platform license agreement that is developed or conceived on or prior to a specified date in Robert Weinberg's laboratory at the Whitehead Institute. Our failure to reach an agreement with either the Broad Institute or the Whitehead Institute for any applicable intellectual property could result in a third party acquiring the related rights.

In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire the relevant compound or product candidate on terms that would allow us to make an appropriate return on our investment.

In addition, we expect competition for acquisition and in-licensing product candidates that are attractive to us may increase in the future, especially if our approach of targeting CSCs gains greater scientific acceptance, which may mean fewer suitable opportunities for us as well as higher acquisition or licensing prices. If we are unable to successfully obtain rights to suitable compounds or product candidates, our business, financial condition and prospects for growth could suffer.

All of our product candidates are still in preclinical development. Preclinical testing and clinical trials of our product candidates may not be successful. If we are unable to commercialize our product candidates or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the identification and preclinical development of drugs that target CSCs. Our ability to generate product revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates. The success of our product candidates will depend on several factors, including the following:

–> successful completion of preclinical studies and clinical trials;

–> receipt of marketing approvals from applicable regulatory authorities;

–> establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;

–> obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;

–> launching commercial sales of the products, if and when approved, whether alone or in collaboration with others;

–> acceptance of the products, if and when approved, by patients, the medical community and third-party payors;

–> effectively competing with other therapies; and

–> a continued acceptable safety profile of the products following approval.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our product candidates, which would materially harm our business.

If clinical trials of our product candidates fail to demonstrate safety and efficacy to the satisfaction of regulatory authorities or do not otherwise produce positive results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

Before obtaining marketing approval from regulatory authorities for the sale of our product candidates, 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 outcome of preclinical testing 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. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products. For example, standard measures of clinical activity with respect to solid tumors, such as Response Criteria in Solid Tumors, or RECIST, measurement guidelines, which are based on gross changes in the size of tumor lesions, may not be sufficient to detect the targeting of CSCs by our product candidates.

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

–> 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 have delays in reaching or fail to reach agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;

–> clinical trials of our product candidates may produce negative or inconclusive results, and 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, 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 may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we might 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;
- 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 a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of our product candidates may be greater than we anticipate;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate; and
- our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators or institutional review boards to suspend or terminate the trials.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we 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 intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings, including boxed warnings;
- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or marketing approvals. We do not know whether any clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant 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.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the U.S. Food and Drug Administration, or FDA, or similar regulatory authorities outside the United States. In addition, many of our competitors have ongoing clinical trials for product candidates that treat the same indications as our product candidates, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates.

Patient enrollment is affected by other factors including:

–> severity of the disease under investigation;

–> eligibility criteria for the study in question;

–> perceived risks and benefits of the product candidate under study;

–> efforts to facilitate timely enrollment in clinical trials;

–> patient referral practices of physicians;

–> the ability to monitor patients adequately during and after treatment; and

–> proximity and availability of clinical trial sites for prospective patients.

Our inability to enroll a sufficient number of patients for our clinical trials would 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, which would cause the value of our company to decline and limit our ability to obtain additional financing.

If serious adverse or inappropriate side effects are identified during the development of our product candidates, we may need to abandon or limit our development of some of our product candidates.

All of our product candidates are still in preclinical development and their risk of failure 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 marketing approval. If our product candidates are associated with undesirable side effects or have characteristics that are unexpected, we may need to abandon their development or limit development 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 early stage testing for treating cancer have later been found to cause side effects that prevented further development of the compound.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research programs and product candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

If we are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience significant delays in doing so, we may not realize the full commercial potential of our therapeutics.

We plan to develop companion diagnostics for our therapeutic product candidates. There has been limited success to date industry wide in developing these types of companion diagnostics. To be successful, we would need to address a number of scientific, technical and logistical challenges. We have only recently initiated development of companion diagnostics. We have limited experience in the development of diagnostics and may not be successful in developing appropriate diagnostics to pair with any of our therapeutic product candidates that receive marketing approval. Companion diagnostics are subject to regulation by the FDA and similar regulatory authorities outside the United States as medical devices and require separate regulatory approval prior to commercialization. Given our limited experience in developing diagnostics, we expect to rely in part on third parties for their design and manufacture. If we, or any third parties that we engage to assist us, are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience delays in doing so:

–> the development of our therapeutic product candidates may be adversely affected if we are unable to appropriately select patients for enrollment in our clinical trials;

–> our therapeutic product candidates may not receive marketing approval if safe and effective use of a therapeutic product candidate depends on an *in vitro* diagnostic; and

–> we may not realize the full commercial potential of any therapeutics that receive marketing approval if, among other reasons, we are unable to appropriately select patients who are likely to benefit from therapy with our drugs.

As a result, our business would be harmed, possibly materially.

Even if any of our product candidates receive marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, healthcare payors and others in the medical community necessary for commercial success.

If any of our product candidates receive marketing approval, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, healthcare payors and others in the medical community. For example, current cancer treatments like chemotherapy and radiation therapy are well established in the medical community, and doctors may continue to rely on these treatments. If our product candidates do not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

–> efficacy and potential advantages compared to alternative treatments;

–> the ability to offer our products for sale at competitive prices;

–> convenience and ease of administration compared to alternative treatments;

–> the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;

–> the strength of marketing and distribution support;

–> sufficient third-party coverage or reimbursement; and

–> the prevalence and severity of any side effects.

If, in the future, we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market our product candidates, we may not be successful in commercializing our product candidates if and when they are approved.

We do not have a sales or marketing infrastructure and have no 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. In the future, we may choose to build a focused sales and marketing infrastructure to market or co-promote some of our product candidates if and when they are approved.

There are risks involved with both establishing our own sales and marketing capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our products on our own include:

–> our inability to recruit and retain adequate numbers of effective sales and marketing personnel;

–> the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future products;

–> the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and

–> unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we enter into arrangements with third parties to perform sales, marketing and distribution services, our product revenues or the profitability of these product revenues to us are likely to be lower than if we were to market and sell any products that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell and market our product candidates or may be unable to do so on terms that are favorable to us. We likely will have little 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 successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

The development and commercialization of new drug products is highly competitive. We face competition with respect to our current product candidates, and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of products for the treatment of the disease indications for which we are developing our product candidates. Some of these competitive products and therapies are based on scientific approaches that are the same as or similar to our approach, and

others are based on entirely different approaches. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

We are developing our product candidates for the treatment of cancer. There are a variety of available therapies marketed for cancer. In many cases, these drugs are administered in combination to enhance efficacy. Some of these drugs are branded and subject to patent protection, and others are available on a generic basis. Many of these approved drugs are well established therapies and are widely accepted by physicians, patients and third-party payors. Insurers and other third-party payors may also encourage the use of generic products. We expect that if our product candidates are approved, they will be priced at a significant premium over competitive generic products. This may make it difficult for us to achieve our business strategy of using our product candidates in combination with existing therapies or replacing existing therapies with our product candidates.

There are also a number of products in clinical development by third parties to treat cancer by targeting CSCs. These companies include divisions of large pharmaceutical companies, including Astellas Pharma US, Inc., Sanofi-Aventis US LLC, GlaxoSmithKline plc, Boehringer Ingelheim GmbH, Pfizer Inc. and others. There are also biotechnology companies of various size that are developing therapies against CSCs, including OncoMed Pharmaceuticals, Inc., Boston Biomedical, Inc. and Stemline Therapeutics, Inc. Our competitors may develop products that are more effective, safer, more convenient or less costly than any that we are developing or that would render our product candidates obsolete or non-competitive. In addition, our competitors may discover biomarkers that more efficiently measure CSCs than our methods, which may give them a competitive advantage in developing potential products. Our competitors may also obtain marketing approval from the FDA or other regulatory authorities for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory 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 and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Even if we are able to commercialize any product candidates, the products may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, which would harm our business.

The regulations that govern marketing approvals, pricing and reimbursement for new drug products vary widely from country to country. In the United States, recently passed legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. 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 foreign 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 our commercial launch of the product, possibly for lengthy time periods, and 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 any products successfully also will depend in part on the extent to which 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 pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that reimbursement will be available for any product that we commercialize and, if reimbursement is available, the level of reimbursement. Reimbursement may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. Obtaining reimbursement for our products may be particularly difficult because of the higher prices often associated with drugs administered under the supervision of a physician. If reimbursement is not available or is available only to limited levels, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or similar regulatory authorities outside the United States. 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. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable payment rates from both government-funded and private payors for any approved products that we develop 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 cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

–> decreased demand for any 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 the related litigation;

–> substantial monetary awards to trial participants or patients;

–> loss of revenue; and

–> the inability to commercialize any products that we may develop.

We currently hold $3.0 million in product liability insurance coverage in the aggregate, with a per incident limit of $3.0 million, which may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage when we begin clinical trials or the commercialization of our product candidates, if ever. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

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 have a material adverse effect on the success of 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.

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. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

RISKS RELATED TO OUR DEPENDENCE ON THIRD PARTIES

We expect to depend on collaborations with third parties for the development and commercialization of our product candidates. If those collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

We may seek third-party collaborators for the development and commercialization of our product candidates. Our likely collaborators for any collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. If we do enter into any such arrangements with any third parties, 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 collaborator's 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;

- a collaborator 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;

- 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 proprietary information or expose us to potential litigation;

- 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 present or future 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 existing 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 such 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.

We expect to rely on third parties to conduct our clinical trials and some aspects of our compound formulation research and preclinical testing, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials, research or testing.

We do not plan to independently conduct clinical trials of our product candidates. In addition, we do not expect to independently conduct all aspects of our compound formulation research or preclinical testing of our product candidates. We expect to rely on third parties, such as contract research organizations, clinical data management organizations, medical institutions and clinical investigators, to conduct our clinical trials. We currently rely and expect to continue to rely on third parties to conduct some aspects of our compound formulation research and preclinical testing. For example, we currently rely on third parties in the development of various formulations of VS-507, VS-4718 and VS-5095. We cannot finish preclinical testing and initiate clinical trials of these product candidates until the development of a formulation is complete. Any of these third parties may terminate their engagements with us at any time. If we need to enter into alternative arrangements, it would delay our product development activities.

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 will remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with standards, commonly referred to as Good Clinical Practices, 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. 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 certain 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 contract with third parties for the manufacture of our product candidates for preclinical testing and expect to continue to do so for clinical trials and for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not have any manufacturing facilities or personnel. We currently rely, and expect to continue to rely, on third-party manufacturers for the manufacture of our product candidates for preclinical testing, other than small amounts of compounds that we may synthesize ourselves for such purpose. To date, we have obtained starting materials for our supply of the cGMP bulk drug substance for our product candidates from one third-party manufacturer. We do not have a long term supply agreement with this third-party manufacturer, and we purchase our required drug supply on a purchase order basis.

We expect to rely on third-party manufacturers or third-party collaborators for the manufacture of our product candidates for clinical trials and for commercial supply of any of these product candidates for which we or our collaborators obtain marketing approval. We may be unable to establish any agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements 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; 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 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 and harm our business and results of operations.

Any 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.

Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval. We do not currently have arrangements in place for redundant supply or a second source for bulk drug substance. If our current contract manufacturer cannot perform as agreed, we may be required to replace that manufacturer. Although we believe that there are several potential alternative manufacturers who could manufacture our product candidates, we may incur added costs and delays in identifying and qualifying any such replacement.

Our current and anticipated future dependence upon others for the manufacture of our product candidates or products 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 fail to comply with our obligations under our intellectual property licenses with third parties, we could lose license rights that are important to our business.

We are a party to a number of intellectual property license agreements with third parties, including the Whitehead Institute and Poniard Pharmaceuticals, Inc., or Poniard, and expect to enter into additional license agreements in the future. Our existing license agreements impose, and we expect that future license agreements will impose, various diligence, milestone payment, royalty, insurance and other obligations on us. For example, under our license agreements with the Whitehead Institute and Poniard, we are required to use commercially reasonable efforts to develop and commercialize licensed products under the agreement and to satisfy other specified obligations. If we fail to comply with our obligations under these licenses, our licensors may have the right to terminate these license agreements, in which event we might not be able to market any product that is covered by these agreements, or to convert the exclusive licenses to non-exclusive licenses, which could materially adversely affect the value of the product candidate being developed under these license agreements. Termination of these license agreements or reduction or elimination of our licensed rights may result in our having to negotiate new or reinstated licenses with less favorable terms. If the Whitehead Institute were to terminate its drug discovery platform license agreement with us for any reason, we would lose access to the EMT technology and the ability to use the stable population of CSCs for high-throughput screening. If Poniard were to terminate its license agreement with us for any reason, we would lose our rights to VS-4718 and VS-5095.

If we are unable to obtain and maintain patent protection for our technology and products, or if our licensors are unable to obtain and maintain patent protection for the technology or products that we license from them, 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 adversely affected.

Our success depends in large part on our and our licensors' ability to obtain and maintain patent protection in the United States and other countries with respect to our proprietary technology and products. We and our licensors seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel technologies and products that are important to our business. To date, no patents have issued that cover any of our proprietary technology or product candidates, and we cannot be certain that any patents will issue with claims that cover any of our proprietary technology or 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 or products that we license from third parties and are reliant on our licensors. For example, we do not control the prosecution of the patent applications licensed to us under our agreements with the Whitehead Institute or those patent applications owned by The Scripps Research Institute, or Scripps, licensed to us under our agreement with Poniard. Therefore, we cannot be certain that these patents and applications will be prosecuted and enforced in a manner consistent with the best interests of our business. If such licensors fail to maintain such patents, or lose rights to those patents, the rights we have licensed may be reduced or eliminated.

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. As a result, the issuance, scope, validity, enforceability and commercial value of our and our licensors' patent rights are highly uncertain. Our and our licensors' pending and future patent applications may not result in patents being issued which protect our technology or products 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.

The laws of foreign countries may not protect our rights to the same extent as the laws of the United States. 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, or in some cases not at all. Therefore we cannot be certain that we or our licensors 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.

Assuming the other requirements for patentability are met, currently, in the United States, the first to make the claimed invention is entitled to the patent, while outside the United States, the first to file a patent application is entitled to the patent. In March 2013, the United States will transition to a first inventor to file system in which, assuming the other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent. We may be subject to a third party preissuance submission of prior art to the U.S. Patent and Trademark Office, or become involved in opposition, derivation, reexamination, *inter parties* review or interference proceedings challenging our 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.

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. For example, although we expect to file patent applications with respect to our product candidate VS-507 with claims directed to its formulation and method of use, patent protection is not available for composition of matter claims directed to its active pharmaceutical ingredient. Because VS-507 lacks composition of matter protection for its active pharmaceutical ingredient, competitors will be able to offer and sell products with the same active pharmaceutical ingredient so long as these competitors do not infringe any other patents that we may obtain covering this drug.

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 the 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, 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, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our patents. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, or may 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 patents at risk of being invalidated or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, our licensors may have rights to file and prosecute such claims and we are reliant on them.

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 and the ability of our collaborators to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. We have yet to conduct comprehensive freedom-to-operate searches to determine whether our use of certain of the patent rights licensed to us would infringe patents issued to third parties. We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference proceedings before the U.S. Patent and Trademark Office. 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 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. 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.

For example, we are aware of a U.S. patent application filed by a third party almost one year after the priority date of the U.S. patent application filed by Scripps and licensed to us by Poniard, which has pending generic claims that, if issued as written, potentially cover VS-4718 and VS-5095. The third-party patent application also specifically discloses VS-4718. Although the Scripps patent application has a priority date that is earlier than the priority date of the third-party application, we cannot be sure which party was the first to make the claimed invention. Because the United States currently uses a first to invent standard to determine priority, if a patent issues under the third-party patent application covering the composition of matter of VS-4718 or VS-5095 and such third party was determined to be the first to make the claimed invention, we would need to obtain a license to the patented technology to commercialize VS-4718 or VS-5095 in the United States, which would cause us to incur licensing related costs. However, a license to this patent might not be available on commercially reasonable terms, or at all. Our failure to obtain a license to any such patent could delay or prevent our potential commercialization of VS-4718 or VS-5095 in the United States.

We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

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. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in 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 adequately conduct such litigation or proceedings. 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 have a material adverse effect on 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 products, 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, 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. 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 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

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 comparable authorities in other countries. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. We have only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third-party contract research organizations to assist us in this process. Securing FDA approval requires the submission of extensive preclinical and clinical data and supporting information to the FDA for each therapeutic indication to establish the product candidate's safety and efficacy. Securing FDA approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the FDA. 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.

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. The FDA has 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.

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 or our third-party collaborators 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 or these third parties 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.

Any product candidate for which we obtain marketing approval could be subject to restrictions or withdrawal from the market and we may be subject to 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 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, or contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the product. The FDA 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.

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

–> 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 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 revenue;

–> suspension or withdrawal of marketing approvals;

–> refusal to permit the import or export of our products;

–> product seizure; or

–> injunctions or the imposition of civil or criminal penalties.

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 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 our products for which we obtain marketing approval. 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 under federal and state healthcare programs 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 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, 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;

- 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 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

- analogous state 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, 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.

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, exclusion 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 providers or entities with whom we expect to do business are 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 foreign 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.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or Medicare Modernization Act, 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 Medicare Modernization Act 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 Medicare Modernization Act may result in a similar reduction in payments from private payors.

More recently, in March 2010, President Obama signed into law the Health Care Reform Law, 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 health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. Effective October 1, 2010, the Health Care Reform Law revises the definition of "average manufacturer price" for reporting purposes, which could increase the amount of Medicaid drug rebates to states. Further, the new law imposes a significant annual fee on companies that manufacture or import branded prescription drug products. Substantial new provisions affecting compliance have also been enacted, which may affect our business practices with health care practitioners. We will not know the full effects of the Health Care Reform Law until applicable federal and state agencies issue regulations or guidance under the new law. Although it is too early to determine the effect of the Health Care Reform Law, the new law appears likely to continue the pressure on pharmaceutical pricing, especially under the Medicare program, and may also increase our regulatory burdens and operating costs.

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 U.S. 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.

RISKS RELATED TO EMPLOYEE MATTERS AND MANAGING GROWTH

Our future success depends on our ability to retain our president and chief executive officer and other key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on Christoph Westphal, our President and Chief Executive Officer, Robert Forrester, our Chief Operating Officer, and Jonathan Pachter, our Vice President, Head of Research, as well as the other principal members of our management and scientific teams, including our scientific co-founders, Robert Weinberg, Eric Lander and Piyush Gupta. Although we have formal employment agreements with Robert Forrester and Jonathan Pachter, these agreements do not prevent them from terminating their employment with us at any time. We do not have an employment agreement with Christoph Westphal. We do not maintain "key person" insurance for any of our executives or other employees. The loss of the services of any of these persons could impede the achievement of our research, development and commercialization objectives.

In addition to his role as Chairman of the board of directors and President and Chief Executive Officer of our company, Dr. Westphal also serves as a general partner of Longwood Fund, LP, a venture capital investment fund and one of our principal stockholders. We and Dr. Westphal anticipate that he will transition to an executive Chairman role at our company in the future based on our having meaningfully advanced our discovery, research and development efforts, the overall growth of our company and our identifying and hiring a suitable successor. In connection with Dr. Westphal's transition to this role, we will need to recruit and hire a new principal executive officer. Our inability to hire a suitable executive to assume this position in a timely fashion could delay the execution of our business plans or disrupt our operations.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be critical to our success. We may not be able to attract and retain these 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, including our scientific co-founders, 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, regulatory and future sales and marketing 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 sales and marketing. 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 physical 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 OUR COMMON STOCK AND THIS OFFERING

After this offering, our executive officers, directors and principal stockholders will maintain the ability to control all matters submitted to stockholders for approval.

Upon the closing of this offering, our executive officers, directors and stockholders who owned more than 5% of our outstanding common stock before this offering will, in the aggregate, beneficially own shares representing approximately 58.6% of our capital stock, excluding any shares of our common stock that our existing principal stockholders may purchase in this offering. Assuming an initial offering price of $10.00 per share, if our principal stockholders purchase all the shares they have indicated interests in purchasing in this offering, the number of shares of our common stock beneficially owned by our executive officers, directors and stockholders who owned more than 5% of our outstanding common stock before this offering will, in the aggregate, increase to 65.3% of our capital stock. As a result, if these stockholders were to choose to act together, they would be able to control all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, would control the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that other stockholders may desire.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our corporate charter and our bylaws that will become effective upon the closing of this offering may discourage, delay or prevent a merger, acquisition or other change in control of us that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions:

–> establish a classified board of directors such that not all members of the board are elected at one time;

–> allow the authorized number of our directors to be changed only by resolution of our board of directors;

–> limit the manner in which stockholders can remove directors from the board;

–> establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;

–> require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;

- limit who may call stockholder meetings;

- authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a "poison pill" that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and

- require the approval of the holders of at least 75% of the votes that all our stockholders would be entitled to cast to amend or repeal certain provisions of our charter or bylaws.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

If you purchase shares of common stock in this offering, you will suffer immediate dilution of your investment.

The initial public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after this offering. To the extent shares are issued under outstanding options or the restricted stock units granted effective upon the closing of this offering or the warrant issuable pursuant to our license agreement with Poniard, you will incur further dilution. Based on an assumed initial public offering price of $10.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, you will experience immediate dilution of $4.32 per share, representing the difference between our pro forma net tangible book value per share after giving effect to this offering and the assumed initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately 40% of the aggregate price paid by all purchasers of our stock but will own only approximately 25% of our common stock outstanding after this offering.

An active trading market for our common stock may not develop.

Prior to this offering, there has been no public market for our common stock. The initial public offering price for our common stock will be determined through negotiations with the underwriters. Although we have applied to list our common stock on The NASDAQ Global Market, an active trading market for our shares may never develop or be sustained following this offering. If an active market for our common stock does not develop, it may be difficult for you to sell shares you purchase in this offering without depressing the market price for the shares or at all.

If our stock price is volatile, purchasers of our common stock could incur substantial losses.

Our stock price is likely to be volatile. The stock market in general and the market for biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, you may not be able to sell your common stock at or above the initial public offering price. The market price for our common stock may be influenced by many factors, including:

- the success of competitive products or technologies;

- results of clinical trials of our product candidates or those of our competitors;

- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- the results of our efforts to discover, develop, acquire or in-license additional product candidates or products;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions; and
- the other factors described in this "Risk factors" section.

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

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

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, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act of 2002 and rules subsequently implemented by the Securities and Exchange Commission and 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.

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. 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.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the 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 could occur at any time. These sales, 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 19,234,116 shares of common stock based on the number of shares outstanding as of December 31, 2011. 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. Of the remaining shares, 14,734,116 shares are currently restricted as a result of securities laws or lock-up agreements but will be able to be sold after the offering as described in the "Shares eligible for future sale" section of this prospectus. Moreover, after this offering, holders of an aggregate of 11,740,794 shares of our common stock will have rights, subject to some conditions, to require us to file registration statements covering their shares or, along with holders of an additional 2,826,708 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.

Special note regarding forward-looking statements

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. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

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

- our ongoing and planned discovery and development of drugs targeting cancer stem cells;
- our expectations regarding the role of cancer stem cells in tumor recurrence and metastasis;
- the potential advantages of our EMT technology;
- our ability to acquire or in-license any compounds or product candidates from third parties that we identify using our proprietary technology or otherwise;
- our plans to develop and commercialize our product candidates and companion diagnostics;
- our ability to establish and maintain collaborations;
- 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 intellectual property position;
- our expectations regarding the use of proceeds from this offering; and
- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing.

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.

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. The forward-looking statements contained in this prospectus are made as of the date of this prospectus, and we do not assume any obligation to update any forward-looking statements except as required by applicable law.

Use of proceeds

We estimate that the net proceeds from our issuance and sale of 4,500,000 shares of our common stock in this offering will be approximately $39.8 million, assuming an initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting 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 the net proceeds from this offering will be approximately $46.0 million.

A $1.00 increase (decrease) in the assumed initial public offering price of $10.00 per share would increase (decrease) the net proceeds from this offering by approximately $4.2 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 the estimated underwriting discounts and commissions.

We currently estimate that we will use the net proceeds from this offering as follows:

- approximately $4.5 million to $5.0 million to complete preclinical and Phase 1 clinical development of VS-507;
- approximately $5.0 million to $6.0 million to complete preclinical development of VS-4718 and VS-5095 and Phase 1 clinical development of whichever of these two product candidates we select to advance into human clinical trials;
- approximately $6.0 million to $7.0 million for preclinical studies of our other proprietary product candidates and companion diagnostics;
- approximately $11.0 million to $12.0 million for discovery, research and preclinical studies of additional compounds; and
- the balance, if any, to fund working capital, capital expenditures and other general corporate purposes, which may include the acquisition or in-license of additional compounds, product candidates or technology.

This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development efforts, the status of and results from clinical trials, as well as 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. We have no current understandings, agreements or commitments for any material acquisitions or licenses of any compounds, product candidates or technology.

Based on our planned use of the net proceeds from this offering, we expect that such funds, together with our existing cash and cash equivalents, will be sufficient to enable us to complete preclinical and Phase 1 clinical development of VS-507 and either VS-4718 or VS-5095 and, subject to successfully completing Phase 1 clinical development, complete a Phase 2 clinical trial for one of VS-507, VS-4718 or VS-5095. However, it is possible that we will not achieve the progress that we expect because the actual costs and timing of research and development are difficult to predict, subject to substantial risks and delays and often vary depending on the particular indication and development strategy. 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 development of any of our product candidates.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment grade, interest bearing instruments and U.S. government securities.

Dividend policy

We have never declared or paid cash dividends on our common stock. 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 cash dividends to holders of our common stock in the foreseeable future.

Capitalization

The following table sets forth our cash and cash equivalents and capitalization as of September 30, 2011:

- on an actual basis;
- on a pro forma basis to give effect to:
  - our issuance and sale in November 2011 of an aggregate of 9,067,825 shares of our series C preferred stock at a price per share of $2.25 for an aggregate purchase price of $20.4 million; and
  - the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, into an aggregate of 11,740,794 shares of our common stock upon the closing of this offering.
- on a pro forma as adjusted basis to give further effect to our issuance and sale of 4,500,000 shares of our common stock in this offering at an assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with "Selected financial data," our financial statements and the related notes appearing at the end of this prospectus and the "Management's discussion and analysis of financial condition and results of operations" section of this prospectus.

	As of September 30, 2011		
	Actual	Pro forma	Pro forma as adjusted
	(in thousands, except per share data)		
Cash and cash equivalents	$ 41,421	$ 61,824	$ 101,574
Series A redeemable convertible preferred stock, $0.0001 par value, 16,000 shares authorized, issued and outstanding, actual; and no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	15,935	—	—
Series B redeemable convertible preferred stock, $0.0001 par value, 16,025 shares authorized, issued and outstanding, actual; and no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	31,943	—	—
Series C redeemable convertible preferred stock, $0.0001 par value, 9,068 shares authorized in November 2011, no shares issued and outstanding, actual, pro forma and pro forma as adjusted	—	—	—
Common stock, $0.0001 par value, 45,000 shares authorized and 1,425 shares issued and outstanding, actual[(1)]; and 53,093 shares authorized and 13,165 shares issued and outstanding, pro forma[(1)]; 100,000 shares authorized and 17,665 shares issued and outstanding, pro forma as adjusted	1	1	2
Additional paid-in capital	822	69,103	108,852
Deficit accumulated during the development stage	(8,462)	(8,462)	(8,462)
Total stockholders' (deficit) equity	(7,639)	60,642	100,392
Total capitalization	$ 40,239	$ 60,642	$ 100,392

(1) Excludes 1,569 shares of unvested common stock subject to repurchase by us as of September 30, 2011.

Capitalization

A $1.00 increase (decrease) in the assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, would increase (decrease) each of cash and cash equivalents, additional paid-in capital, total stockholders' equity (deficit) and total capitalization on a pro forma as adjusted basis by approximately $4.2 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.

The table above does not include:

- 405,141 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2011 at a weighted-average exercise price of $0.75 per share;
- 30,101 additional shares of our common stock available for future issuance as of September 30, 2011 under our 2010 equity incentive plan;
- 600,000 shares of our common stock issuable pursuant to restricted stock units granted, effective upon the closing of this offering, under our 2012 incentive plan;
- 2,828,571 additional shares of our common stock available for future issuance, as of the closing of this offering, under our 2012 incentive plan; and
- 142,857 shares of our common stock issuable upon exercise of a warrant, with an exercise price equal to the average closing price of our common stock during the five days preceding the date of issuance, that we have agreed to issue to Poniard Pharmaceuticals, Inc. upon achievement of a milestone pursuant to a license agreement.

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 public offering price per share of our common stock and the pro forma net tangible book value per share of our common stock after this offering.

Our historical net tangible book value as of September 30, 2011 was $(7.7) million, or $(5.36) 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 1,424,660 shares of our common stock outstanding, which excludes 1,568,662 shares of unvested restricted stock subject to repurchase by us.

Our pro forma net tangible book value as of September 30, 2011 was $60.6 million, or $4.61 per share of our 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 after giving effect to our issuance and sale in November 2011 of an aggregate of 9,067,825 shares of our series C preferred stock at a price per share of $2.25 for an aggregate purchase price of $20.4 million and the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, into an aggregate of 11,740,794 shares of our common stock upon the closing of this offering.

After giving effect to our issuance and sale of 4,500,000 shares of our common stock in this offering at an assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma net tangible book value as of September 30, 2011 would have been $100.4 million, or $5.68 per share. This represents an immediate increase in pro forma net tangible book value per share of $1.07 to existing stockholders and immediate dilution of $4.32 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		$ 10.00
Historical net tangible book value per share as of September 30, 2011	$ (5.36)	
Increase attributable to the conversion of outstanding preferred stock	9.97	
Pro forma net tangible book value per share as of September 30, 2011	4.61	
Increase in net tangible book value per share attributable to new investors	1.07	
Pro forma net tangible book value per share after this offering		5.68
Dilution per share to new investors		$ 4.32

A $1.00 increase (decrease) in the assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, would increase (decrease) our pro forma net tangible book value by approximately $4.2 million, our pro forma net tangible book value per share by approximately $0.24 and dilution per share to new investors by approximately $0.76, 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.

If the underwriters exercise their over-allotment option 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 September 30, 2011, 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 existing stockholders and by new investors in this offering at an assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. As the table shows, new investors purchasing shares in this offering will pay an average price per share substantially higher than our existing stockholders paid.

	Shares purchased		Total consideration		Average price per share
	Number	Percentage	Amount	Percentage	
Existing stockholders	13,165,454	75%	$ 68,455,000	60%	$ 5.20
New investors	4,500,000	25	$ 45,000,000	40	10.00
Total	17,665,454	100%	$ 113,455,000	100%	

A $1.00 increase (decrease) in the assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by $4.5 million and increase (decrease) the percentage of total consideration paid by new investors by approximately 2%, 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 September 30, 2011 and 11,740,794 additional shares of our common stock issuable upon the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, upon the closing of this offering.

The table above excludes:

–> 405,141 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2011 at a weighted-average exercise price of $0.75 per share;

–> 30,101 additional shares of our common stock available for future issuance as of September 30, 2011 under our 2010 equity incentive plan;

–> 600,000 shares of our common stock issuable pursuant to restricted stock units granted, effective upon the closing of this offering, under our 2012 incentive plan;

–> 2,828,571 additional shares of our common stock available for future issuance, as of the closing of this offering, under our 2012 incentive plan;

–> 1,568,662 shares of unvested restricted stock subject to repurchase by us as of September 30, 2011; and

–> 142,857 shares of our common stock issuable upon exercise of a warrant, with an exercise price equal to the average closing price of our common stock during the five days preceding the date of issuance, that we have agreed to issue to Poniard Pharmaceuticals, Inc. upon achievement of a milestone pursuant to a license agreement.

Dilution

If the underwriters exercise their over-allotment option in full, the following will occur:

–> the percentage of shares of our common stock held by existing stockholders will decrease to approximately 72% of the total number of shares of our common stock outstanding after this offering; and

–> the number of shares of our common stock held by new investors will increase to 5,175,000, or approximately 28% of the total number of shares of our common stock outstanding after this offering.

Certain of our existing stockholders and their affiliated entities have indicated an interest in purchasing an aggregate of up to approximately $16.3 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, these stockholders may determine to purchase fewer shares than they indicate an interest in purchasing or not to purchase any shares in this offering. In addition, the underwriters could determine to sell fewer shares to these stockholders than the stockholders indicate an interest in purchasing or not to sell any shares to these stockholders. The foregoing discussion and tables do not reflect any potential purchases by these existing stockholders or their affiliated entities.

Selected financial data

You should read the following selected financial data together with our financial statements and the related notes appearing at the end of this prospectus and the "Management's discussion and analysis of financial condition and results of operations" section of this prospectus. We have derived the statements of operations data for the period from August 4, 2010 (inception) to December 31, 2010 and the balance sheet data as of December 31, 2010 from our audited financial statements included in this prospectus. We have derived the statements of operations data for the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011 and the balance sheet data as of September 30, 2011 from our unaudited financial statements included in this prospectus. The unaudited financial data include, in the opinion of our management, all adjustments, consisting only of normal recurring adjustments, that are necessary for a fair presentation of our financial position and results of operations for these periods. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period, and our results for any interim period are not necessarily indicative of results to be expected for a full fiscal year.

Statement of operations data:	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
	(in thousands, except per share data)		
Operating expenses:			
Research and development	$ 400	$ 5,483	$ 5,883
General and administrative	384	2,195	2,579
Total operating expenses	784	7,678	8,462
Operating loss	(784)	(7,678)	(8,462)
Net loss	$ (784)	$ (7,678)	$ (8,462)
Accretion of preferred stock	(2)	(18)	(20)
Net loss applicable to common stockholders	$ (786)	$ (7,696)	$ (8,482)
Net loss per share applicable to common stockholders—basic and diluted	$ (0.91)	$ (6.27)	$ (7.70)
Weighted-average number of common shares used in net loss per share applicable to common stockholders—basic and diluted	850	1,226	1,097
Pro forma net loss per share applicable to common stockholders—basic and diluted	$ (0.60)	$ (1.33)	
Weighted-average number of common shares used in pro forma net loss per share applicable to common stockholders—basic and diluted	1,325	5,850	

Pro forma basic and diluted net loss per common share is calculated assuming the automatic conversion of all outstanding shares of our preferred stock, excluding shares of our series C preferred stock that we issued and sold in November 2011.

Selected financial data

The pro forma balance sheet data set forth below gives effect to:

–> our issuance and sale in November 2011 of an aggregate of 9,067,825 shares of our series C preferred stock at a price per share of $2.25 for an aggregate purchase price of $20.4 million; and

–> the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, into an aggregate of 11,740,794 shares of our common stock upon the closing of this offering.

The pro forma as adjusted balance sheet data set forth below give further effect to our issuance and sale of 4,500,000 shares of our common stock in this offering at an assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	As of September 30, 2011		
Balance sheet data:	**Actual**	**Pro forma**	**Pro forma as adjusted**
	(in thousands)		
Cash and cash equivalents	$ 41,421	$ 61,824	$ 101,574
Working capital	39,419	59,822	99,572
Total assets	42,364	62,767	102,517
Redeemable convertible preferred stock	47,878	—	—
Deficit accumulated during the development stage	(8,462)	(8,462)	(8,462)
Total stockholders' (deficit) equity	(7,639)	60,642	100,392

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 financial statements and related notes appearing at the end of 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 biopharmaceutical company focused on discovering and developing proprietary small molecule drugs targeting cancer stem cells in breast and other cancers along with proprietary companion diagnostics. A cancer stem cell is a particularly aggressive type of tumor cell, resistant to conventional cancer therapy, that we believe is an underlying cause of tumor recurrence and metastasis. Our scientific co-founders, Robert Weinberg, Ph.D., Eric Lander, Ph.D., and Piyush Gupta, Ph.D., have made discoveries that link the epithelial-to-mesenchymal transition, or EMT, to the emergence of cancer stem cells. This transition involves the transformation of one type of cancer cell into a more aggressive and drug resistant type of cancer cell. Building on these discoveries, our scientific co-founders developed proprietary technology to create a stable population of cancer stem cells that we use to screen for and identify small molecule compounds that target cancer stem cells. We expect to file an investigational new drug application, or IND, with the U.S. Food and Drug Administration, or FDA, in late 2012 for our product candidate VS-507 and in early 2013 for one of our product candidates VS-4718 or VS-5095, in each case to initiate a Phase 1 clinical trial of these product candidates.

We commenced active operations in the second half of 2010. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, acquiring and developing our technology, identifying potential product candidates and undertaking preclinical studies of our most advanced product candidates. To date, we have not generated any revenues and have financed our operations with net proceeds from the private placement of our preferred stock.

As of September 30, 2011, we had a deficit accumulated during the development stage of $8.5 million. Our net loss was $7.7 million for the nine months ended September 30, 2011, $784,000 for the period from August 4, 2010 (inception) to December 31, 2010 and $8.5 million for the period from August 4, 2010 (inception) to September 30, 2011. We expect to incur significant expenses and increasing operating losses for the foreseeable future. We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development and later initiate clinical trials of, and seek marketing approval for, our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. 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. Adequate additional financing may not be available to us on acceptable terms, or at all. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts. We will need to generate significant revenues to achieve profitability, and we may never do so.

FINANCIAL OPERATIONS OVERVIEW

Revenue

To date, we have not generated any revenues. Our ability to generate product revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates.

Research and development expenses

Research and development expenses consist of costs associated with our research activities, including our drug discovery efforts, and the development of our therapeutic product candidates and companion diagnostics. Our research and development expenses consist of:

–> employee-related expenses, including salaries, benefits, travel and stock-based compensation expense;

–> external research and development expenses incurred under arrangements with third parties, such as contract research organizations, or CROs, manufacturing organizations and consultants, including our scientific advisory board;

–> license fees; and

–> facilities, depreciation and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, depreciation of leasehold improvements and equipment, and laboratory and other supplies.

We expense research and development cost to operations as incurred. We account for nonrefundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when the goods have been received, rather than when the payment is made.

We use our employee and infrastructure resources across multiple research and development projects. We do not allocate employee-related expenses or depreciation to any particular project. Because all of our development projects are in preclinical development, we do not track research and development costs by project. The components of our research and development costs are described in more detail in "—Results of operations." We expect to track specific project costs when product candidates enter toxicology studies to enable the filing of an IND with the FDA.

We anticipate that our research and development expenses will increase significantly in future periods as we increase the scope and rate of our drug discovery efforts and begin costlier development activities, including clinical trials for our current and additional product candidates in the future.

Our most advanced product candidates are VS-507, VS-4718 and VS-5095. We are currently evaluating these compounds in preclinical studies as potential therapies for breast and other cancers. We initiated IND-enabling toxicology studies for VS-507 in January 2012. Assuming successful completion of preclinical studies, including IND-enabling toxicology studies, we expect to file an IND with the FDA in late 2012 to initiate a Phase 1 clinical trial of VS-507. We expect to initiate IND-enabling toxicology studies for VS-4718 and VS-5095 in the first half of 2012. Assuming successful completion of preclinical studies, including IND-enabling toxicology studies, we expect to file an IND with the FDA in early 2013 to initiate a Phase I clinical trial of one of VS-4718 or VS-5095. We currently estimate that before initiating clinical trials for VS-507 and either VS-4718 or VS-5095, we will incur between $1.5 million and $2.5 million of additional preclinical development expenses for each of these two programs.

The successful development of our product candidates is highly uncertain. As this time, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary

to complete development of our product candidates or the period, if any, in which material net cash inflows from our product candidates may commence. This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

–> the scope, rate of progress and expense of our drug discovery efforts and other research and development activities;

–> the potential benefits of our product candidates over other therapies;

–> our ability to market, commercialize and achieve market acceptance for any of our product candidates that we are developing or may develop in the future;

–> clinical trial results;

–> the terms and timing of regulatory approvals; and

–> the expense of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights.

A 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 costs and timing associated with the development of that product candidate. For example, if the FDA or other regulatory authority were to require us to conduct clinical trials beyond those which 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 clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development.

General and administrative expenses

General and administrative expenses consist primarily of salaries and related costs for personnel, including stock-based compensation expense, in our executive, finance and business development functions. Other general and administrative expenses include allocated facility costs and professional fees for legal, patent, investor and public relations, consulting and accounting services.

We anticipate that our general and administrative expenses will increase in future periods to support increases in our research and development activities and as a result of increased headcount, expanded infrastructure, increased legal, compliance, accounting and investor and public relations expenses associated with being a public company and increased insurance premiums, among other factors.

Interest income

Prior to September 30, 2011, our cash and cash equivalents were invested in non-interest-bearing accounts. As a result, we have not earned any interest through September 30, 2011. We expect interest income to increase in future periods as we invest the proceeds from our series B and series C preferred stock financings.

Accretion of preferred stock

Our preferred stock is redeemable beginning in 2016 at its original issue price plus any declared but unpaid dividends upon a specified vote of the preferred stockholders. Accretion of preferred stock reflects the periodic accretion of issuance costs on our preferred stock to its redemption value.

CRITICAL ACCOUNTING POLICIES AND SIGNIFICANT JUDGMENTS AND ESTIMATES

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which we have prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and

judgments that affect the reported amounts of assets, liabilities and expenses and the disclosure of contingent assets and liabilities in our financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to accrued expenses and stock-based compensation described in greater detail below. We base our estimates on our limited historical experience, known trends and events and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Our significant accounting policies are described in more detail in the notes to our financial statements appearing at the end of this prospectus. However, we believe that the following accounting policies are the most critical to aid you in fully understanding and evaluating our financial condition and results of operations.

Accrued research and development expenses

As part of the process of preparing our financial statements, we are required to estimate our accrued expenses. This process involves reviewing quotations and contracts, identifying 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 the actual cost. The majority of our service providers invoice us monthly in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date in our 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. The significant estimates in our accrued research and development expenses include fees paid to CROs in connection with research and development activities for which we have not yet been invoiced.

We base our expenses related to CROs on our estimates of the services received and efforts expended pursuant to quotes and contracts with CROs that conduct research and development 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. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the research and development expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid 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 could result in us reporting amounts that are too high or too low in any particular period.

Stock-based compensation

As we continue to expand our headcount, we expect to make additional stock option and restricted stock grants, which will result in additional stock-based compensation expense. Accordingly, we describe below the methodology we have employed to date in measuring such expenses. Following the consummation of this offering, stock option values will be determined based on the market price of our common stock.

Since our inception in August 2010, we have applied the fair value recognition provisions of Financial Accounting Standards Board Accounting Standards Codification Topic 718, *Compensation-Stock Compensation*, which we refer to as ASC 718. Determining the amount of stock-based compensation

to be recorded requires us to develop estimates of the fair value of stock options as of their grant date. Stock-based compensation expense is recognized ratably over the requisite service period, which in most cases is the vesting period of the award. Calculating the fair value of stock-based awards requires that we make highly subjective assumptions. We use the Black-Scholes option pricing model to value our stock option awards. Use of this valuation methodology requires that we make assumptions as to the volatility of our common stock, the expected term of our stock options, the risk free interest rate for a period that approximates the expected term of our stock options and our expected dividend yield. Because we are a privately-held company with a limited operating history, we utilize data from a representative group of companies to estimate expected stock price volatility. We selected companies from the biopharmaceutical industry with similar characteristics to us, including early stage of product development and therapeutic focus. We use the simplified method as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term of stock option grants to employees as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term of stock options granted to employees. We utilize a dividend yield of zero based on the fact that we have never paid cash dividends and have no current intention to pay cash dividends. The risk-free interest rate used for each grant is based on the U.S. Treasury yield curve in effect at the time of grant for instruments with a similar expected life.

Stock-based compensation expense associated with stock options granted to employees was insignificant for the period August 4, 2010 (inception) to December 31, 2010, and totaled $7,000 for the nine months ended September 30, 2011. As of September 30, 2011, we had $169,000 of total unrecognized compensation expense, net of related forfeiture estimates, which we expect to recognize over a weighted-average remaining vesting period of approximately 3.8 years. While our stock-based compensation for stock options granted to employees to date has not been material to our financial results, we expect the impact to grow in future periods due to the potential increases in the value of our common stock and headcount.

Under ASC 718, we are required to estimate the level of forfeitures expected to occur and record compensation expense only for those awards that we ultimately expect will vest. Due to the lack of historical forfeiture activity of our plan, we estimated our forfeiture rate based on data from a representative group of companies with similar characteristics to us. Through September 30, 2011, forfeitures have not been material.

The following table sets forth information with respect to stock options granted to employees since August 4, 2010 (inception).

	Number of shares underlying options granted	Exercise price per share	Common stock fair value per share on grant date
December 3, 2010	67,143	$ 0.28	$ 0.28
March 3, 2011	21,429	0.28	0.28
June 8, 2011	79,999	0.28	0.28
September 6, 2011	115,142	1.93	1.93
September 20, 2011	5,714	1.93	1.93

We have granted stock options at exercise prices not less than the estimated fair market value of our common stock. As there was no public market for our common stock, our board of directors determined the estimated fair value of our common stock, taking into consideration various objective and subjective factors, including:

–> external market conditions affecting the biopharmaceutical industry;

–> prices at which we sold shares of preferred stock to third-party investors;

–> the superior rights and preferences of securities senior to our common stock at the time of each grant;

–> our historical operating and financial performance;

–> the status of our research and development efforts;

–> the likelihood of achieving a liquidity event, such as an initial public offering, or IPO, or sale of our company; and

–> estimates and analysis provided by management and contemporaneous valuations.

For the period from November 30, 2010 through June 30, 2011, our board of directors determined the fair value of our common stock to be $0.28 per share. This was an increase from the previous fair value of our common stock of $0.00035, as determined by our board of directors in August 2010. The increase in value from August 2010 was primarily due to the following factors:

–> we entered into consulting agreements with our scientific advisory board;

–> we signed an exclusive license agreement with the Whitehead Institute, or the drug discovery platform license agreement, which includes the right to VS-507 for use in treating cancer, our first license for intellectual property;

–> we signed an agreement to sell 16.0 million shares of our series A preferred stock at $1.00 per share, or $3.50 per share on a common stock equivalent basis as a result of the reverse stock split of our common stock that was effected on January 10, 2012, for an aggregate purchase price of $16.0 million and then sold 4.0 million of such shares for an aggregate purchase price of $4.0 million; and

–> we hired our first three employees and commenced operations.

Because of the minimal value of non-cash assets owned during this period, including the early stage of our research and development efforts under our licensed rights, the superior preferences associated with our series A preferred stock in relation to our common stock and our focus on start-up activities, we attributed a nominal fair value to our common stock during this time.

We performed contemporaneous valuations of our common stock as of November 30, 2010, July 31, 2011 and September 30, 2011 in accordance with the framework of the 2004 American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the Practice Aid. Based on the valuation methodology selection criteria set forth in the Practice Aid, with a focus on the early stage of our development as a company, including the early stage status of our development efforts, very limited operations and the fact that we had an incomplete management team, as of November 30, 2010, we determined that an asset-based approach was the most appropriate method to use to determine the enterprise value of our company. We then allocated the enterprise value using the current value method. We concluded that this was the most appropriate method since we did not have any projections as of the valuation date due to the early stage of our research and development. As such, an income approach would not have provided a reliable fair value determination. In addition, as a result of the lack of comparative information available for publicly-traded or privately-held start-up enterprises, and because any investments in shares of stock are unlikely to be a reliable indicator of fair value at such an early stage, we concluded that the market approach would also not provide a reliable fair value determination as of this date. The results of this valuation methodology were consistent with our expectations, as we would not have expected any significant value to have been created for the common stockholders. We concluded that there were no significant transactions affecting our capital structure or significant developments in our research and development which would have indicated that an update to our valuation was required at dates until after June 30, 2011.

In July 2011, we completed our series B preferred stock financing and hired our Vice President, Head of Research. Based on the significance of these transactions, we deemed it appropriate to update the valuation of our common stock as of July 31, 2011. For the period from July 31, 2011 to September 20, 2011, our board of directors determined the fair value of our common stock to be $1.93 per share. This was an increase from the previous fair value of our common stock of $0.28 per share. The increase in value from November 30, 2010 was primarily due to the following factors:

–> we sold the remaining 12.0 million shares of our series A preferred stock for an aggregate purchase price of $12.0 million;

–> we entered into a facility lease agreement, moved into our new facility and began operating our own laboratory;

–> we sold 16.0 million shares of our series B preferred stock at $2.00 per share, or $7.00 per share on a common stock equivalent basis as a result of the reverse stock split of our common stock that was effected on January 10, 2012, for an aggregate purchase price of $32.1 million; and

–> we hired three members of our executive management team, our Chief Operating Officer, Vice President and Head of Research and Vice President Preclinical Development and CMC.

We performed a contemporaneous valuation of our common stock as of July 31, 2011 in accordance with the framework of the Practice Aid. Based on the valuation methodology selection criteria set forth in the Practice Aid and the stage of our development as a company as of July 31, 2011, we determined that the option pricing method was the most appropriate valuation methodology to estimate the fair value of our common stock. Key variables in the option pricing method were as follows:

–> Underlying equity value—To estimate the value of our total equity, including both common and preferred equity, we utilized the marketable equity value based on the most recent round of preferred stock financing, our series B preferred stock financing with a price of $2.00 per share, or $7.00 per share on a common stock equivalent basis as a result of the reverse stock split of our common stock that was effected on January 10, 2012, which we believed to be the most indicative of our value. This valuation technique used to estimate the enterprise value of our company is referred to as the reverse backsolve method.

–> Volatility—We estimated volatility based on guideline publicly-traded companies over a 2.0-year period.

–> Time to liquidity—We estimated time to a liquidity event based on the projected time to significant clinical development events for our product candidates that we believed could lead to an IPO or sale. The estimated time to a liquidity event of 2.0 years assumed a weighted average timeline of either an IPO or sale. The IPO timeline was 1.0 year and the sale timeline was 2.25 years. The probability of an IPO was 25% and the probability of a sale was 75%.

–> Risk-free interest rate—We determined the risk-free interest rate based on the yield of a U.S. Treasury bill with a maturity date closest to the estimated time to a liquidity event for our stockholders.

–> Discounts for lack of marketability—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. We estimated the discount factor of 30% for illiquidity using legal guidelines from U.S. 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 factor 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 optionholders do not control.

For our valuation as of July 31, 2011, we assumed a weighted-average two-year time to a liquidity event based on a probability-weighted analysis of the time to a liquidity event under an IPO scenario and several sale scenarios. Our estimates were supported by our belief that we would have multiple product candidates in clinical trials in mid-2013. At that time, we believed that an IPO or other liquidity event could occur in anticipation of the availability of those data.

We updated the valuation of our common stock again on September 30, 2011, which resulted in a fair value of $5.32 per share. This was an increase from the previous fair value of $1.93 per share. The increase in value from July 31, 2011 was primarily due to the following factors:

–> we hired our Chief Executive Officer and Vice President of Development and, as a result, our executive management team was complete and in place;

–> we made significant progress negotiating the in-licensing of additional product candidates; and

–> we selected investment bankers and initiated the process of preparing to file a registration statement for an IPO, significantly accelerating the timeframe for a potential IPO since July 31, 2011 and increasing the probability of an IPO from 25% to 50%.

As of September 30, 2011, we concluded that a liquidity event was possible within six months due to the fact that we had selected investment bankers and initiated the initial process of preparing to file a registration statement for an IPO. We also believed that a sale was equally likely to occur after the availability of the clinical data from our initial clinical trial, which was still expected within two years of the valuation date. We calculated valuations using both liquidity event assumptions and equally weighted the results to estimate the fair value of our common stock. We believed that an equal weight applied to both scenarios was appropriate based upon our assessment of the probability of each scenario occurring, acknowledging market risks and other factors that might impact our ability to complete an IPO.

In the IPO scenario, we assumed all of our preferred shares would convert into common stock and the present value of the future projected enterprise value was based on the value of the anticipated series C preferred stock financing, which was contemplated as of the valuation date, at $2.25 per share, or $7.88 per share on a common stock equivalent basis as a result of the reverse stock split of our common stock that was effected on January 10, 2012. There was no discount for lack of marketability applied to the IPO scenario. The estimated time to complete an IPO was six months.

For the sale scenario, we utilized the option pricing method and key assumptions were as follows:

–> Underlying equity value—To estimate the value of our total equity, including both common and preferred equity, we utilized the marketable equity value based on the anticipated closing of the series C preferred stock financing, which we believed to be the most indicative of our value. This financing closed in November 2011 and was led by previously unrelated investors.

–> Volatility—We estimated volatility based on guideline publicly-traded companies over a 2.25-year period.

–> Time to liquidity—We estimated a weighted-average time to a sale event of 2.25 years based on the projected time to significant clinical development events for our product candidates.

–> Risk-free interest rate—We determined the risk-free interest rate based on the yield of a U.S. Treasury bill with a maturity date closest to the estimated time to a sale event for our stockholders.

–> Discounts for lack of marketability—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. We estimated the discount factor of 15% for illiquidity using legal guidelines from U.S. 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 factor based on the value of a put option compared to the value of common stock using a Black-Scholes option pricing model.

The primary reason for the lower fair value per share of our common stock in comparison to the fair value per share of our preferred stock on each valuation date was the value of the superior rights and preferences associated with the preferred stock, the most significant of which are the liquidation rights held by the preferred stockholders.

On January 13, 2012, we and our underwriters determined the estimated price range for this offering, as set forth on the cover page of this prospectus. The midpoint of the price range is $10.00 per share. In comparison, our estimate of the fair value of our common stock was $5.32 per share as of September 30, 2011. We note that, as is typical in IPOs, the estimated price range for this offering was not derived using a formal determination of fair value, but was determined by negotiation between us and the underwriters. Among the factors that were considered in setting this range were our prospects and the history of and prospects for our industry, the general condition of the securities markets and the recent market prices of, and the demand for, publicly-traded common stock of generally comparable companies. Specifically, we believe that the difference between the fair value of our common stock as of September 30, 2011 and the midpoint of the estimated price range for this offering is primarily the result of the following factors:

–> in November 2011, we sold 9.1 million shares of series C preferred stock at $2.25 per share, or $7.88 per share on a common stock equivalent basis as a result of the reverse stock split of our common stock that was effected on January 10, 2012, for an aggregate purchase price of $20.4 million;

–> in November 2011, we acquired the exclusive, worldwide license to develop, make, use and sell compounds and products covered by the licensed patent rights from Poniard Pharmaceuticals, Inc., including VS-4718 and VS-5095;

–> we initiated IND-enabling toxicology studies for VS-507 and progressed the preclinical development of VS-4718 and VS-5095;

–> we filed a registration statement with the Securities and Exchange Commission and are prepared to launch a roadshow for this offering; and

–> upon the closing of this offering, all outstanding shares of our preferred stock will convert into common stock, thus eliminating the superior rights and preferences of our preferred stock as compared to our common stock.

There are significant judgments and estimates inherent in the determination of these valuations. These judgments and estimates include assumptions regarding our future performance, including the successful completion of our preclinical studies and clinical trials and the time to completing an IPO or sale, as well as the determination of the appropriate valuation methods at each valuation date. If we had made different assumptions, our stock-based compensation expense could have been different. The foregoing valuation methodologies are not the only methodologies available and they will not be used

to value our common stock once this offering is complete. Accordingly, investors are cautioned not to place undue reliance on the foregoing valuation methodologies as an indicator of our future stock price.

RESULTS OF OPERATIONS

We were incorporated on August 4, 2010. As a result, our results of operations reflect the period from August 4, 2010 (inception) to December 31, 2010 and the nine month period ended September 30, 2011. There is no comparable period for 2010.

Discussion of the nine month period ended September 30, 2011

Research and development expenses. Research and development expenses were $5.5 million for the nine month period ended September 30, 2011. Expenses during the period included:

–> Contract research organization expenses of $2.2 million, representing 40% of total research and development expenses during the period, comprised of expenses for outsourced biology, chemistry and development services.

–> Consulting fees of $898,000, representing 16% of total research and development expenses during the period, including $352,000 for our scientific advisory board, $232,000 for recruitment consultants and $106,000 for database consultants.

–> Payroll expense of $820,000, representing 15% of total research and development expenses during the period, including salaries, payroll taxes and benefits for our employees in research and development. We had 11 employees in research and development at September 30, 2011. Payroll expense also included stock-based compensation expense for employees of $19,000.

–> Laboratory supply expense of $687,000, representing 13% of total research and development expenses during the period.

–> Non-employee stock-based compensation expense of $417,000, representing 8% of total research and development expenses during the period, related to stock options and restricted stock awarded to members of our scientific advisory board.

–> Occupancy expense of $327,000, representing 6% of total research and development expenses during the period, which is an allocated portion of rent and other occupancy costs.

General and administrative expenses. General and administrative expenses were $2.2 million for the nine month period ended September 30, 2011. Expenses during the period included:

–> Payroll expense of $908,000, representing 42% of total general and administrative expenses during the period, including salaries, payroll taxes and benefits for our general and administrative employees. Payroll expense included stock-based compensation expense for employees of $3,000.

–> Consulting fees of $365,000, representing 17% of total general and administrative expenses during the period, including business development, public relations and finance consultants.

–> Professional fee expense of $302,000, representing 14% of total general and administrative expenses during the period, comprised of fees for audit, tax and legal services, including the reimbursement to the Whitehead Institute of patent costs related to our licenses with the Whitehead Institute.

–> Non-employee stock-based compensation expense of $302,000, representing 14% of total general and administrative expenses during the period, related to restricted stock awarded to our co-founders.

–> Occupancy expense of $164,000, representing 7% of total general and administrative expenses during the period, which is an allocated portion of rent and other occupancy costs.

–> Travel expense of $135,000, representing 6% of total general and administrative expenses during the period, including travel, meals, entertainment and conferences.

Accretion of preferred stock. We recorded $18,000 of accretion in the nine month period ended September 30, 2011 reflecting the periodic accretion of issuance costs associated with our series A and series B preferred stock.

Discussion of the period from August 4, 2010 (inception) to December 31, 2010

Research and development expenses. Research and development expenses were $400,000 for the period from August 4, 2010 (inception) to December 31, 2010. Expenses during the period included:

–> License fee expense of $182,000, representing 46% of total research and development expenses during the period, comprised of fees for our exclusive and non-exclusive licenses, as well as the fair value of common stock that we issued to the Whitehead Institute in connection with our drug discovery platform license agreement.

–> Consulting fees of $137,000, representing 34% of total research and development expenses during the period, primarily for our scientific advisory board.

–> Contract research organization expenses of $42,000, representing 11% of total research and development expenses during the period, including expenses for outsourced biology and chemistry.

–> Non-employee stock-based compensation expense of $24,000, representing 6% of total research and development expenses during the period, related to stock options and restricted stock awarded to members of our scientific advisory board.

–> Laboratory supply expense of $13,000, representing 3% of total research and development expenses during the period.

General and administrative expenses. General and administrative expenses were $384,000 for the period from August 4, 2010 (inception) to December 31, 2010. Expenses during the period included:

–> Professional fee expense of $182,000, representing 47% of total general and administrative expenses during the period, comprised of fees for audit, tax and legal services, including the reimbursement to the Whitehead Institute of patent costs related to our drug discovery platform license agreement.

–> Payroll expense of $96,000, representing 25% of total general and administrative expenses during the period, including salaries, payroll taxes and benefits for our general and administrative employees. Stock-based compensation expense was not material to the financial statements.

–> Occupancy expense of $36,000, representing 9% of total general and administrative expenses during the period, which is an allocated portion of rent and other occupancy costs.

–> Non-employee stock-based compensation expense of $28,000, representing 7% of total general and administrative expenses during the period, related to restricted stock awarded to our co-founders.

–> Consulting fees of $26,000, representing 7% of total general and administrative expenses during the period, including business development, public relations and information technology consultants.

–> Travel expense of $16,000, representing 4% of total general and administrative expenses during the period, including travel, meals, entertainment and conferences.

Accretion of preferred stock. We recorded $2,000 of accretion in the period from August 4, 2010 (inception) to December 31, 2010 reflecting the periodic accretion of issuance costs associated with our series A and series B preferred stock.

LIQUIDITY AND CAPITAL RESOURCES

Sources of liquidity

To date, we have not generated any revenues. We have financed our operations to date through private placements of our preferred stock. As of September 30, 2011, we had received $47.9 million in net proceeds from the issuance of preferred stock. As of September 30, 2011, we had cash and cash equivalents totaling $41.4 million. In November 2011, we received proceeds of $20.4 million from the issuance of our series C preferred stock. We primarily invest our cash and cash equivalents in a U.S. Treasury money market fund.

Cash flows

The following table sets forth the primary sources and uses of cash for each of the periods set forth below.

(in thousands)	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011
Net cash used in operating activities	$ (330)	$ (5,298)
Net cash used in investing activities	(8)	(840)
Net cash provided by financing activities	3,922	43,975
Net increase in cash and cash equivalents	$ 3,584	$ 37,837

Operating activities. The use of cash in all periods resulted primarily from our net losses adjusted for non-cash charges and favorable changes in the components of working capital. The significant increase in cash used in operating activities for the nine month period ended September 30, 2011 compared to the period from August 4, 2010 (inception) to December 31, 2010 is due to an increase in research and development expenses as we increased our research and development headcount, increased spending on external research and development costs and increases in the balance of accounts payable, accrued expenses and deferred rent. In addition, we commenced operations in August 2010 and, as such, the period ended December 31, 2010 reflects only five months of activity. We expect cash used in operating activities to continue to increase for the foreseeable future as we fund our increased research and development activities. We currently estimate that before initiating clinical trials for VS-507 and either VS-4718 or VS-5095, we will incur between $1.5 million and $2.5 million of additional preclinical development expenses for each of these two programs.

Investing activities. The cash used in investing activities for all periods reflects the purchases of property and equipment. The majority of such purchases in the nine month period ended September 30, 2011 were for laboratory equipment. In addition, during the nine month period ended

September 30, 2011, investing activities included an $86,000 increase in restricted cash related to a standby letter of credit issued as a security deposit for our facility lease.

Financing activities. The cash provided by financing activities in the nine month period ended September 30, 2011 is the result of the sale and issuance of 12,000,000 shares of our series A preferred stock for net proceeds of $12.0 million, the sale and issuance of 16,025,000 shares of our series B preferred stock for net proceeds of $31.9 million and $38,000 of net proceeds from the sale of restricted stock to employees. The cash provided by financing activities in the period from August 4, 2010 (inception) to December 31, 2010 is primarily the result of the sale and issuance of 4,000,000 shares of our series A preferred stock for net proceeds of $3.9 million.

Funding requirements

All of our product candidates are still in preclinical development. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. We anticipate that our expenses will increase substantially if and as we:

–> continue our research and preclinical development of our product candidates;

–> seek to identify additional product candidates that target cancer stem cells;

–> acquire or in-license other products and technologies;

–> initiate clinical trials for our product candidates;

–> seek marketing approvals for our product candidates that successfully complete clinical trials;

–> ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;

–> maintain, expand and protect our intellectual property portfolio;

–> 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.

We expect that the net proceeds from this offering, together with our existing cash and cash equivalents, including the $20.4 million in proceeds from the issuance and sale of our series C preferred stock in November 2011, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 48 months. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, and the extent to which we may enter into collaborations with third parties for development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenses associated with completing the development of our current product candidates. Our future capital requirements will depend on many factors, including:

–> the scope, progress, results and costs of compound discovery, preclinical development, laboratory testing and clinical trials for our product candidates;

–> the extent to which we acquire or in-license other products and technologies;

–> the costs, timing and outcome of regulatory review of our product candidates;

–> the costs of future commercialization activities, including product sales, marketing, manufacturing and distribution, for any of our product candidates for which we receive marketing approval;

–> revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval;

–> the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims; and

–> our ability to establish collaborations on favorable terms, if at all.

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, collaborations, strategic alliances and licensing arrangements. 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, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic alliances 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.

CONTRACTUAL OBLIGATIONS AND COMMITMENTS

The following table summarizes our contractual obligations at September 30, 2011.

(in thousands)	Total	Remainder of 2011	2012-2013	2014-2015	Beyond 2015
Operating lease obligations	$ 1,104	$ 86	$ 711	$ 307	—
License agreements[(1)]	—	—	—	—	—

(1) As discussed in Note 10 to the financial statements appearing at the end of this prospectus, we have executed several agreements to license intellectual property. The license agreements require us to pay upfront license fees and ongoing annual license maintenance fees, totaling a minimum of $95,000 per year beginning in 2012 up to a maximum amount of $155,000 per year beginning in 2015, as well as reimburse certain patent costs previously incurred by the licensors, as applicable. We have not included maintenance fees beyond the remainder of 2011 in the table above since the minimum annual payments are perpetual and the agreements are cancelable by us at any time upon 90 days' prior written notice to the licensor. Amounts for 2011 were paid prior to September 30, 2011.

Under our drug discovery platform license agreement, we also have agreed to make milestone payments to the Whitehead Institute upon achieving various development, regulatory and commercialization milestones. For each licensed product, we agreed to make milestone payments of up to an aggregate of $1,560,000 plus an additional amount for each subsequent approval of additional indications for a maximum number of licensed products. For each identified product that is not a licensed product, we agreed to make milestone payments of up to an aggregate of $815,000 plus an additional amount for each subsequent approval of additional indications for a maximum number of identified products. Each type of specified milestone payment is payable only for each of the maximum number of licensed products and the maximum number of identified products, as the case may be, to

achieve the applicable milestone. In addition, a separate milestone payment is due upon the first commercial sale of each licensed product or identified product that is a diagnostic or prognostic test. A single additional milestone payment is due for the first issuance of licensed patent rights in the United States, the United Kingdom, France, Germany, Spain or Italy. In addition, we have agreed to pay the Whitehead Institute royalties as a percentage of net sales of licensed products. The royalty rate is in the low single digits as a percentage of net sales for licensed products that are therapeutics, the mid single digits for licensed products that are diagnostics or prognostics and less than one percent for identified products.

Under our license agreement with Poniard Pharmaceuticals, Inc., or Poniard, that we entered into in November 2011 relating to VS-4718 and VS-5095 and other compounds covered by a licensed patent right under that agreement that have the inhibition of Focal Adhesion Kinase as a primary mode of action, we paid an upfront license fee and agreed to pay Poniard milestone payments of up to an aggregate of $13,250,000 upon the achievement of specified development and regulatory milestones. We also agreed to issue to Poniard a warrant to purchase 142,857 shares of our common stock upon the first dosing of the first patient in our first Phase 1 clinical trial of a licensed product. The exercise price of such warrant would be equal to the average closing price of our common stock during the five trading days preceding such issue date. In addition, we agreed to pay low to mid single digit royalties to Poniard as a percentage of net sales of licensed products.

Under our separate exclusive license agreement with the Whitehead Institute, or the cancer diagnostic license agreement, which we amended and restated in December 2011, we paid an upfront license fee and agreed to make milestone payments of up to an aggregate of $825,000 to the Whitehead Institute upon achieving specified regulatory and commercialization milestones. In addition, we have agreed to pay the Whitehead Institute royalties as a percentage of net sales of licensed products. The royalty rate is in the mid single digits as a percentage of net sales.

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 Securities and Exchange Commission rules.

TAX LOSS CARRYFORWARDS

As of December 31, 2010, we had federal net operating loss carryforwards of $570,000 and state net operating loss carryforwards of $578,000, which are available to reduce future taxable income. We also had federal tax credits of $15,000 and state tax credits of $5,000, which may be used to offset future tax liabilities. The net operating loss and tax credit carryforwards will expire at various dates through 2030. Net operating loss and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities and may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant stockholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of our company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years. At December 31, 2010, we recorded a 100% valuation allowance against our net operating loss and tax credit carryforwards of approximately $320,000, as we believe it is more likely than not that the tax benefits will not be fully realized. In the future, if we determine that a portion or all of the tax benefits associated with our tax carryforwards will be realized, net income would increase in the period of determination.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS

We are exposed to market risk related to changes in interest rates. We had cash and cash equivalents of $3.6 million as of December 31, 2010 and $41.4 million as of September 30, 2011, consisting of cash and money market funds. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our investments are in short-term securities. Our available for sale securities are subject to interest rate risk and will fall in value if market interest rates increase. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our portfolio.

We contract with CROs and contract manufacturers globally. We may be subject to fluctuations in foreign currency rates in connection with these agreements. Transactions denominated in currencies other than the functional currency are recorded based on exchange rates at the time such transactions arise. As of September 30, 2011, approximately $36,000 of our total liabilities were denominated in currencies other than the functional currency. As of December 31, 2010, all of our liabilities were denominated in our functional currency.

RECENTLY ADOPTED ACCOUNTING STANDARDS

We have not recently adopted any new accounting standards. There are no recently issued accounting standards that have a material impact on us.

Business

OVERVIEW

We are a biopharmaceutical company focused on discovering and developing proprietary small molecule drugs targeting cancer stem cells in breast and other cancers along with proprietary companion diagnostics. A cancer stem cell is a particularly aggressive type of tumor cell, resistant to conventional cancer therapy, that we believe is an underlying cause of tumor recurrence and metastasis. Our scientific co-founders, Robert Weinberg, Ph.D., Eric Lander, Ph.D., and Piyush Gupta, Ph.D., have made discoveries that link the epithelial-to-mesenchymal transition, or EMT, to the emergence of cancer stem cells. This transition involves the transformation of one type of cancer cell into a more aggressive and drug resistant type of cancer cell. Building on these discoveries, our scientific co-founders developed proprietary technology to create a stable population of cancer stem cells that we use to screen for and identify small molecule compounds that target cancer stem cells. We expect to file an investigational new drug application, or IND, with the U.S. Food and Drug Administration, or FDA, in late 2012 for our product candidate VS-507 and in early 2013 for one of our product candidates VS-4718 or VS-5095, in each case to initiate a Phase 1 clinical trial of these product candidates.

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. The American Cancer Society estimates that in the United States in 2011, approximately 1.6 million new cases of cancer will be diagnosed and nearly 600,000 people will die from the disease. Current treatments for cancer include surgery, radiation therapy, chemotherapy, hormone therapy and targeted therapy. According to estimates by the National Institutes of Health, in the United States in 2010, the direct medical costs of cancer of all types exceeded $100 billion. IMS Health estimates that in the United States in 2010, approximately $22 billion was spent on drugs to treat cancer, representing the largest class of drug spending in the United States. Despite years of intensive research and clinical use, current treatments often fail to cure cancer.

We believe that a key reason for the ultimate failure of many current therapies to achieve a durable clinical response may be the presence of cancer stem cells, or CSCs, which are also sometimes referred to as tumor-initiating cancer cells, within tumors. CSCs have been identified in many types of cancer, including breast, pancreatic, colon, brain, lung and leukemia. Following many cancer treatments, the tumor can remain with a high percentage of CSCs and become more aggressive and resistant to further treatment. In addition, patients who relapse often develop metastatic disease in which the cancer spreads to other sites in the body. Tumor metastasis to critical organs is the cause of more than 90% of cancer deaths. We believe that it is the drug resistance and ability of CSCs to spread to other sites in the body that may be the root causes of these failed therapies. Accordingly, our mission is to develop drugs targeting CSCs that either in combination with other cancer treatments or alone can kill all of the cells comprising a tumor and, thus, create a durable clinical response.

We license our EMT technology from the Whitehead Institute for Biomedical Research, an affiliate of the Massachusetts Institute of Technology, or MIT, and the President and Fellows of Harvard College, or Harvard. We also have a first right to negotiate a license for additional related intellectual property from the Broad Institute, an affiliate of MIT and Harvard University. Using our proprietary technology, we can create a stable population of CSCs in the laboratory for use in rapid and automated assays, referred to as high-throughput screening, to enable discovery of novel drugs targeting these CSCs. We are using our discovery approach to identify a pipeline of small molecule compounds with the potential to target CSCs.

Our most advanced product candidates are VS-507, VS-4718 and VS-5095. We are currently evaluating these compounds in preclinical studies as potential therapies for breast and other cancers.

We believe that these compounds may be especially beneficial as therapeutics in aggressive cancers with a high percentage of CSCs, such as triple negative breast cancer, or TNBC. TNBC is a type of breast cancer in which a high percentage of CSCs has been identified and that has a poorer prognosis and lower overall survival rate than other types of breast cancer.

Using our EMT technology, our scientific co-founders identified VS-507 as a drug candidate for killing breast CSCs. Their research on VS-507, which included an analysis of the effect of VS-507 on cell lines derived from TNBC, was published in the peer reviewed scientific journal *Cell* in 2009. Recently published third-party research has reported that VS-507's activity may be mediated through the blockade of the Wnt/beta-catenin cell signaling pathway, a network of proteins that Dr. Weinberg described in 2011 in *Cell* as critical for the development and maintenance of CSCs. In mouse models of breast cancer, VS-507 treatment decreased biophysical or biochemical markers, referred to as biomarkers, of CSCs. In contrast, treatment in the same model with a standard chemotherapeutic agent, paclitaxel, increased biomarkers of CSCs.

We identified the CSC-targeted activity of VS-4718 and VS-5095 using our proprietary technology. In preclinical testing, these compounds were found to be potent and selective inhibitors of Focal Adhesion Kinase, or FAK, a protein which is involved in cell adhesion and motility. FAK expression is greater in many tumor types compared to normal tissue, particularly in cancers that have a high invasive and metastatic capability. In preclinical mouse models, both VS-4718 and VS-5095 demonstrated good oral bioavailability and pharmacokinetic and pharmacodynamic properties and effectively reduced both primary tumor growth and metastatic burden.

An important element of our business strategy is the development and use of proprietary, companion diagnostics in connection with the development of our therapeutic drug candidates. We plan to use these diagnostics as part of a personalized medicine approach to identify patients with aggressive cancers that have a high percentage of CSCs, which is the group that we believe will benefit most from our therapies. We also believe that these diagnostics may be used to monitor patients' progress on therapy and aid physicians' ongoing treatment decisions.

OUR MANAGEMENT TEAM AND SCIENTIFIC CO-FOUNDERS AND ADVISORS

Our experienced management team includes our President and Chief Executive Officer, Chairman and co-founder Christoph Westphal, M.D., Ph.D., our Chief Operating Officer, Robert Forrester, and our Vice President, Head of Research, Jonathan Pachter, Ph.D. Dr. Westphal has been involved in founding a number of biotechnology companies as chief executive officer, including Sirtris Pharmaceuticals, Inc., which was acquired by GlaxoSmithKline plc in 2008, as well as Alnylam Pharmaceuticals, Inc. and Momenta Pharmaceuticals, Inc. Dr. Westphal also co-founded Alnara Pharmaceuticals, Inc., which was acquired by Eli Lilly and Co. in 2010. Mr. Forrester has been the chief executive officer, chief operating officer and chief financial officer of both private and public life science companies, including Forma Therapeutics, Inc., CombinatoRx, Inc., now Zalicus Inc., and Coley Pharmaceutical Group, Inc., which was acquired by Pfizer Inc. in 2007. Dr. Pachter has over 20 years of experience in leading the discovery of small molecule and monoclonal antibody therapeutics for the treatment of cancer, most recently as the Senior Director of Cancer Biology at OSI Pharmaceuticals Inc., which was acquired by Astellas Pharma Inc. in 2010.

Our scientific co-founders are recognized leaders in the field of cancer biology. Robert Weinberg, Ph.D., Founding Member of the Whitehead Institute and Professor of Biology at MIT, has played a key role in identifying the genetic basis of cancer. Dr. Weinberg discovered the first tumor oncogene, the first tumor suppressor gene, the role of a protein related to the cell surface receptor HER2 in preclinical studies and the mechanisms underlying the formation of CSCs. Eric Lander, Ph.D.,

Founding Director of the Broad Institute, Professor of Biology at MIT and Professor of Systems Biology at Harvard Medical School, played a central role in the Human Genome Project. Piyush Gupta, Ph.D., Member of the Whitehead Institute and Assistant Professor of Biology at MIT, co-developed with Dr. Lander and Dr. Weinberg our proprietary EMT technology for use in the identification of drugs targeting CSCs and a genetic expression signature, useful as a biomarker, to monitor the effect of treatment.

Our management team is supported by our scientific advisory board comprised of leading academic and industry scientists. Our scientific advisory board consists of:

Scientific advisory board

Robert Weinberg, Ph.D. *Scientific co-founder*	Founding Member of the Whitehead Institute for Biomedical Research, Professor of Biology at the Massachusetts Institute of Technology and recipient of the 1997 National Medal of Science
Eric Lander, Ph.D. *Scientific co-founder*	Founding Director of the Broad Institute, Professor of Biology at the Massachusetts Institute of Technology and Professor of Systems Biology at Harvard Medical School
Piyush Gupta, Ph.D. *Scientific co-founder*	Member of the Whitehead Institute for Biomedical Research and Assistant Professor of Biology at the Massachusetts Institute of Technology
Julian Adams, Ph.D.	President of Research and Development of Infinity Pharmaceuticals, Inc., former Senior Vice President of Drug Discovery and Development of Millennium Pharmaceuticals, Inc. and co-inventor and co-developer of Velcade
José Baselga, M.D., Ph.D.	Chief of Hematology and Oncology at Massachusetts General Hospital, Associate Director of the Massachusetts General Hospital Cancer Center and Professor of Medicine at Harvard Medical School
George Daley, M.D., Ph.D.	Professor of Hematology and Oncology and Director of the Stem Cell Transplantation Program at Children's Hospital and Professor of Biological Chemistry and Molecular Pharmacology at Harvard Medical School
Peter Elliott, Ph.D.	Former Senior Vice President and Head of Research and Development of Sirtris Pharmaceuticals, Inc., former Vice President of Phamacology and Drug Development of Millennium Pharmaceuticals, Inc. and co-developer of Velcade
Daniel Haber, M.D., Ph.D.	Director of the Massachusetts General Hospital Cancer Center and Professor of Medicine at Harvard Medical School
Joseph (Yossi) Schlessinger, Ph.D.	Chairman and Professor in the Department of Pharmacology at Yale School of Medicine

Scientific advisory board

Phillip A. Sharp, Ph.D.	Institute Professor at the David H. Koch Institute for Integrative Cancer Research at the Massachusetts Institute of Technology and recipient of the 1993 Nobel Prize in Medicine and Physiology
Roger Tung, Ph.D.	President and Chief Executive Officer of Concert Pharmaceuticals, Inc., former Vice President of Drug Discovery of Vertex Pharmaceuticals, Inc. and co-inventor of Lexiva and Agenerase
Christopher Walsh, Ph.D.	Hamilton Kuhn Professor in the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School
Eric Winer, M.D.	Director of the Breast Oncology Center at the Dana Farber Cancer Institute and Professor of Medicine at Harvard Medical School

THE PROBLEM

The cancer death rate in the United States has only decreased modestly since the early 1990s. Cancer remains one of the world's most serious health problems and is the second most common cause of death in the United States after heart disease. The American Cancer Society estimates that in the United States in 2011, approximately 1.6 million new cases of cancer will be diagnosed and nearly 600,000 people will die from the disease. According to estimates by the National Institutes of Health, in the United States in 2010, the direct medical cost of cancer of all types exceeded $100 billion and the cancer type responsible for the highest individual disease costs was breast cancer at $16.5 billion. The following table sets forth the U.S. annual incidence, based on 2011 estimates from the American Cancer Society, and the prevalence, or the number of people in the United States who have been previously diagnosed with cancer, based on 2010 estimates from the National Cancer Institute, for select cancers in which CSCs have been implicated.

Cancer type	U.S. annual incidence	U.S. prevalence
Breast	230,480	2,645,621
Lung and bronchus	221,130	373,489
Colorectal	141,210	1,110,077
Leukemia	44,600	253,350
Pancreatic	44,030	34,657
Brain and other nervous system cancers	22,340	128,193

For tumors that have not yet metastasized and remain localized to the site of original tumor formation, current treatments for cancer can be effective in initially reducing tumor burden. However, for many forms of cancer, current treatments lack sufficient efficacy to achieve a durable clinical response. Following initial treatment, the tumor may recur at the same site or metastasize and spread to other sites in the body. The vast majority of patients who succumb to cancer are killed by tumors that have metastasized. This is illustrated by the information in the following table, which shows, according to the National Cancer Institute's *SEER Cancer Statistics Review, 2001-2007*, the reduction in five-year survival rate for breast cancer patients based on the stage of the disease at the time at which the

disease is diagnosed. The percentage of patients diagnosed at each stage of disease, referred to as stage distribution, is included below for comparative purposes.

Breast cancer stage at diagnosis	Stage distribution[1]	Five-year relative survival rate
Localized (confined to primary site)	60%	98.6%
Regional (spread to regional lymph nodes)	33%	83.8%
Distant (cancer has metastasized)	5%	23.4%

(1) 2% of breast cancer cases were designated as unknown stage.

With the application of new technologies and key discoveries, we believe that we are now entering an era of cancer research characterized by a more sophisticated understanding of the biology of cancer. We believe that the discovery of CSCs and the role that they play in cancer development are important new insights that present the opportunity to develop more effective treatments.

Epithelial-to-mesenchymal transition

In most solid tumors, the cells that make up the tissue mass have a characteristic epithelial appearance. Epithelial cells generally have a multi-sided, uniform shape. Epithelial cells also have well-defined contact points with neighboring cells and a strong attachment to the underlying connective tissue that creates a framework for solid tumors in the body. Epithelial cells generally lack the ability to separate from these connection points to move, invade or metastasize into surrounding tissue or other sites in the body.

Epithelial cells can undergo a transformation to a different cell type, called mesenchymal cells, through a process called epithelial-to-mesenchymal transition, or EMT. In contrast with epithelial cells, mesenchymal cells have an elongated spindle shape, lack orderly contacts with neighboring cells and can survive without contact with a surface or connective tissue. The EMT process is a series of reprogramming events that normally operates during the development of tissues and organs prior to birth. However, the EMT process also can be appropriated by epithelial cancer cells that are referred to as carcinoma cells. When epithelial carcinoma cells residing in a solid tumor undergo the EMT process, the resulting mesenchymal cancer cells have the capability to invade through local barriers and metastasize to other sites in the body.

Another consequence of epithelial carcinoma cells undergoing the EMT process is that the resulting mesenchymal cancer cells have significantly increased resistance to current cancer treatments. Retrospective analyses of data from two Phase 3 clinical trials in lung cancer, one published in *Clinical Cancer Research* in 2005 and the other presented at the 2009 World Conference on Lung Cancer, revealed that patients with high expression of epithelial biomarkers responded better to the anti-cancer drug Tarceva in terms of both progression-free survival and overall survival than patients in the same two trials with low levels of epithelial biomarkers in their tumors. These results suggest that the mesenchymal cancer cell population, which lacks epithelial biomarkers, is resistant to these therapies. These clinical observations are consistent with preclinical studies published in *Cancer Research* in 2005 reporting that lung cancer cells expressing mesenchymal biomarkers appeared to be resistant to Tarceva and other targeted anti-cancer agents when transplanted into mice.

Cancer stem cells

We believe that CSCs, which are sometimes referred to as tumor-initiating cancer cells, are responsible for the initiation, metastasis and recurrence of many cancers. CSCs have the ability to:

–> move freely and proliferate without attachment to other cells or surfaces;

–> initiate a tumor;

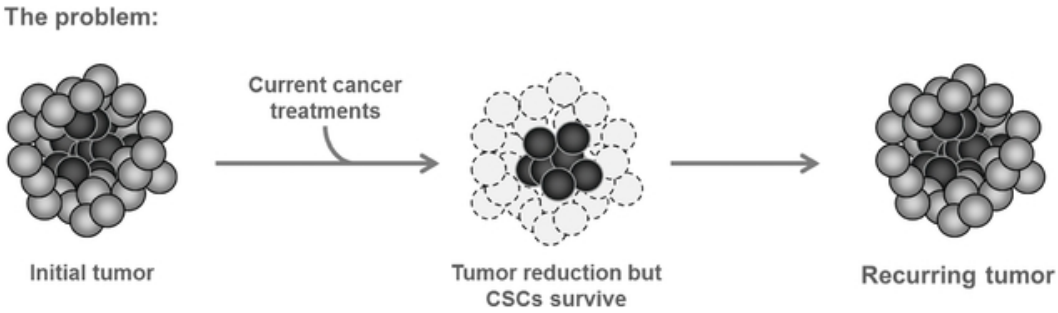
–> self-renew;

–> produce other cancer cell types; and

–> resist many current cancer treatments.

CSCs are often characterized by a distinctive set of biomarkers, which we believe may be a key to identifying patients with tumors that are likely to respond to therapies targeting CSCs.

CSCs may be more resistant to current cancer treatments than other types of cancer cells. Thus, as illustrated in the figure below, while current treatments may succeed at initially decreasing tumor burden, they may leave behind a population of CSCs that can regenerate tumors. Therefore, the presence of a mixture of CSCs and other types of cancer cells within a tumor may necessitate a therapeutic approach combining drugs that can kill both cell populations.



The need to target CSCs may apply across the treatment of a broad range of cancers. CSCs have been isolated and characterized from many types of cancer, including breast, pancreatic, colon, brain, lung and leukemia. The CSCs isolated from each of these tumor types have been found to confer greater tumor-forming capability when transplanted into mice than other types of cancer cells from the same tumor.

Several specific signaling pathways have been implicated in CSC biology. The combined action *in vitro* of the TGF-beta and Wnt signaling pathways in the formation and survival of CSCs was described by Dr. Weinberg in *Cell* in 2011. Separately, FAK has been found to increase the metastatic capability of breast cancer cells following the EMT process.

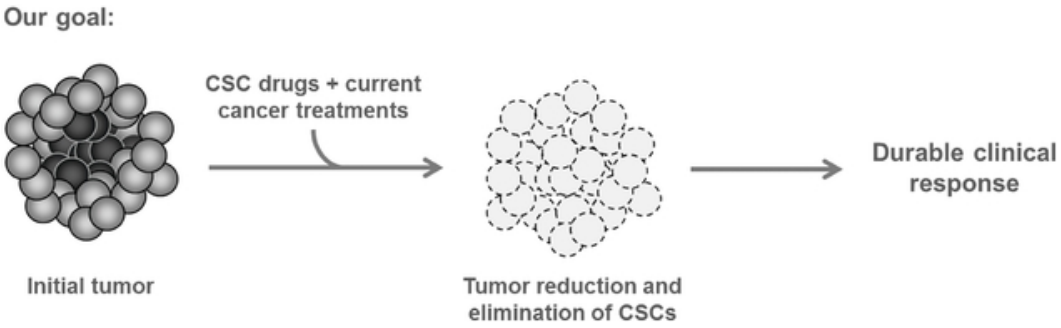
CSCs from breast cancer have been characterized in several studies. For example, in a study conducted at the Baylor College of Medicine, breast cancer biopsies were taken from patients at the time of initial diagnosis and again following 12 weeks of treatment with docetaxel, a standard cancer chemotherapy widely used to treat breast cancer. The biopsies taken after 12 weeks of treatment showed increased expression of biomarkers for CSCs and an increased number of chemoresistant cells as compared to biopsies taken at the time of initial diagnosis. This result indicates that the CSC component of the tumor was relatively resistant to the chemotherapy. Moreover, it supports our belief that either a

combination of treatments or a single therapy that can effectively target both CSCs and other types of cancer cells is critical to create a durable clinical response.

OUR SOLUTION

Our solution is to discover and develop a next generation of oncology therapeutics targeting cancer stem cells along with companion diagnostics. We believe that by developing therapeutics that target CSCs we can address the problem of cancer recurrence and metastasis and create a durable clinical response.

Our scientific co-founders at the Whitehead Institute and the Broad Institute made discoveries linking the activation of the EMT process in epithelial cancer cells to the emergence of CSCs. Their studies demonstrated that the EMT process can be activated *in vitro* by forcing a higher level of expression of genes that direct the EMT process or by eliminating key epithelial proteins. The mesenchymal cancer cells that emerge from this induced EMT process have the hallmarks of CSCs, including tumor-forming ability and increased resistance to chemotherapeutic drugs. Our solution utilizes proprietary technology based on the discovery linking the EMT process to the emergence of CSCs. We use this technology along with high-throughput screening methods to identify drugs targeting CSCs and develop companion diagnostics. To achieve a durable clinical response, we believe that it may be necessary to kill both CSCs and other types of cancer cells in a tumor, as illustrated in the figure below, either with a combination of current cancer treatments and CSC-targeted drugs or a single therapeutic found to target both cancer cell populations.



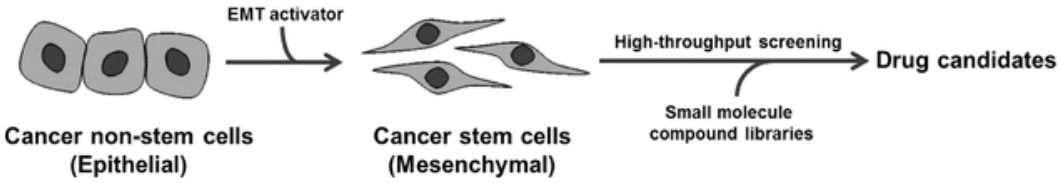
Our proprietary technology

A persistent problem in the discovery of drugs targeting CSCs is the difficulty of isolating large numbers of CSCs. Without such large numbers, the discovery of drugs targeting CSCs using high-throughput screening is extremely difficult. Moreover, when CSCs are isolated, they typically do not remain stable in culture. Instead, over a short period of time, CSCs convert into other types of cancer cells. To address this problem, our scientific co-founders developed proprietary technology based on the EMT process to create a stable population of CSCs that are suitable for use in high-throughput screening of small molecule compounds. These stable CSCs are similar to natural CSCs in that they are drug resistant and capable of forming new tumors.

We license our EMT technology from the Whitehead Institute. Through September 30, 2011, we and scientists at the Whitehead Institute and the Broad Institute had used our technology and high-throughput screening methods to evaluate the ability of over 300,000 compounds to kill CSCs. We hold exclusive license rights to compounds and uses identified under our agreement with the

Whitehead Institute and a right of first negotiation to compounds identified under our agreement with the Broad Institute.

To identify compounds that are selective for CSCs, we grow cancer non-stem cells in the laboratory and then induce the EMT process to create a stable population of CSCs. As illustrated in the figure below, we then screen compounds to assess their ability to kill the CSCs. Because these CSCs are stable in culture, the screening process can be conducted using high-throughput technology on a large number and wide variety of small molecule compound libraries. These compound libraries include new chemical entities, or NCEs, approved drugs and compounds that are in preclinical and clinical development. We then profile the compounds that are identified as selective for CSCs using additional assays to identify suitable clinical candidates.



Biomarkers and diagnostics

Because of the high level of toxicity of traditional chemotherapies and the variability in response of tumors to these treatments, it is critically important to get the right cancer drug to the right patient. As a result, the oncology field has been at the forefront of developing diagnostics to select patients who may benefit from specific therapies, which is sometimes referred to as personalized medicine. We plan to build on the methods incorporated in our EMT technology to develop diagnostics designed to enhance our ability to deliver the right drug to the right patient.

In particular, we are identifying specific protein and gene biomarkers that are either present or conspicuously absent in CSCs. We are also developing panels of multiple biomarkers, which we believe may be more effective at identifying CSCs than individual biomarkers alone. We believe that our diagnostics will enable us to identify patients with aggressive cancers that have a high percentage of CSCs. We further believe that these patients are the most likely to benefit from our drug candidates. By screening to identify these patients, we expect to be able to select appropriate patients for enrollment in our clinical trials and ultimately, if we obtain marketing approval, patients who are likely to respond to our therapies. We also plan to use these diagnostics to measure the selective killing of CSCs by our drug candidates as one of the ways of determining their efficacy.

We expect that our use of proprietary diagnostics may accelerate the clinical development process for our drug candidates by enabling smaller, targeted trials. We believe that use of these diagnostics may provide early, objective signals of drug activity to guide us to optimal dosing and the sequencing of agents more quickly. We also believe that this approach may ultimately enable physicians to identify patients who are likely to benefit most from these therapies and make better clinical decisions during therapy.

We are working on companion diagnostics for our therapeutic programs based on both in-licensed and internally developed technology and science. We believe that augmenting our internal capabilities with external collaborations with experienced third parties can reduce development risk and accelerate our progress in this field.

OUR STRATEGY

We believe that a key reason for the failure of many current cancer treatments is that they fail to kill CSCs, which we believe are responsible for the initiation, metastasis and recurrence of many cancers. Our goal is to build a leading biopharmaceutical company focused on the discovery, development and, ultimately, commercialization of novel drugs and companion diagnostics targeting CSCs. Key elements of our strategy to achieve this goal are:

–> *Continue to screen and identify small molecules that target CSCs.* We plan to use our proprietary EMT technology and high-throughput screening methods to identify additional compounds that target CSCs. We also plan to further optimize these agents through medicinal chemistry as necessary to create drug candidates.

–> *In-license rights to additional compounds to expand our pipeline of candidates that target CSCs.* We plan to pursue the acquisition or in-license from third parties of rights to additional compounds that target CSCs, including compounds that are in preclinical and clinical development. We believe that our approach of identifying drug candidates from external sources at various stages of development to supplement our internal programs may allow us to initiate clinical development of a diverse pipeline of compounds more quickly than if we were to focus solely on internally developed NCEs.

–> *Rapidly advance our drug candidates into clinical development.* We expect to file an IND with the FDA in late 2012 for VS-507 and in early 2013 for one of VS-4718 or VS-5095, in each case to initiate a Phase 1 clinical trial of these product candidates. Our goal is to initiate clinical development of a number of additional therapeutic candidates over the next several years.

–> *Develop diagnostics for therapeutic products targeting CSCs.* We plan to develop companion diagnostic products to support our therapeutic product candidates. We believe that use of these diagnostics may aid in the selection of patients for enrollment in our clinical trials and, if we obtain marketing approval, patients who are most likely to benefit from therapy with our drugs. We also believe that these diagnostics may be used to monitor patients' progress on therapy and aid physicians' ongoing treatment decisions.

–> *Collaborate selectively to augment and accelerate development and commercialization.* We may seek third-party collaborators for the development and commercialization of our product candidates. In particular, we may enter into third-party arrangements for target oncology indications in which our potential collaborator has particular expertise or for which we need access to additional research, development or commercialization resources.

–> *Maintain scientific leadership in the CSC field.* We plan to continue to conduct research in the field of EMT and CSCs to further our understanding of the underlying biology of cancer progression and metastasis. We also plan to continue fostering relationships with top scientific advisors, researchers and physicians. We believe that investing in the recruitment of exceptional advisors, employees and management is critical to leadership in the CSC field.

OUR PRODUCT CANDIDATES

Using our proprietary technology and high-throughput screening methods, we are evaluating compounds for their activity against CSCs in a way that we believe has not been previously possible. We are focused on the discovery and development of small molecules to expedite the path to human clinical trials and to allow flexibility in the design of molecules for optimized efficacy and safety regardless of the route of administration.

We intend to incorporate CSC-specific biomarkers into companion diagnostics for our product candidates for use in identifying patients whose tumors have a high percentage of CSCs and are likely to benefit from treatment. We may use this information to aid in the selection of patients for late stage clinical trials. We also plan to utilize these diagnostics to measure the effect that our product candidates have on CSCs in a tumor.

We are developing our product candidates for the treatment of breast cancer, initially triple negative breast cancer, and other cancers with a high percentage of CSCs. We believe that our product candidates target CSCs that have been implicated in aggressive cancers, metastasis and chemotherapeutic resistance. To enhance therapeutic benefit, we may also use our product candidates in combination with existing therapies in an effort to target both CSCs and other types of cancer cells.

BREAST CANCER

Overview

The National Cancer Institute estimated that in January 2008 there were approximately 2.6 million women in the United States with a history of breast cancer. Breast cancer is currently the second most frequently diagnosed and the second most deadly cancer among women in the United States. The American Cancer Society estimates that in the United States in 2011, approximately 230,500 new cases of invasive breast cancer will be diagnosed in women and approximately 39,500 women will die from the disease.

Breast cancers can be segregated into subtypes based upon the positive presence of three protein receptors:

–> estrogen receptor, or ER;

–> progesterone receptor, or PR; and

–> human epidermal growth factor receptor 2, or HER2.

Triple negative breast cancer, or TNBC, is a type of breast cancer that does not express any of these three receptors. According to results from a population-based study of the California Cancer Registry published by the American Cancer Society in 2007, approximately 15% of all breast cancers were classified as TNBC. In comparison with other breast cancers, TNBC tends to grow faster and has a higher rate of metastases. Furthermore, TNBC tends to recur more often than other subtypes of breast cancer. Patients with TNBC generally have a poorer prognosis and lower overall survival rate than patients with breast cancers that are positive for the hormone receptors ER and PR.

We believe that the natural disease progression of TNBC exhibits the key hallmarks of CSCs. Specifically, we believe that:

–> TNBC is initially responsive to chemotherapy because chemotherapy kills the majority of cancer cells, but not the CSCs.

–> TNBC returns more often than other types of breast cancer in part because there are CSCs that are not killed by current cancer treatments.

–> The site of recurrence is often at another place in the body than the original tumor because the CSCs not killed are able to metastasize.

–> The recurring tumor may be resistant to therapy because it contains a high percentage of CSCs.

We believe that our product candidates may be especially beneficial as therapeutics for the treatment of TNBC, in particular for the subset of TNBC patients whose tumors are classified as claudin-low. Claudin-low TNBC patients have tumors containing a low level of protein biomarkers called claudins. Claudin-low tumors are highly aggressive, are resistant to treatment and have a high percentage of CSCs relative to other breast cancer types. The prognosis for patients with claudin-low TNBC is poor.

Current treatment of breast cancer

Surgery, radiation therapy, targeted therapy, hormone therapy and combinations of conventional chemotherapy are often used to treat breast cancer. However, these therapies carry significant side effects and frequently do not result in a durable clinical response, especially for patients with TNBC.

The choice of cancer drugs used to treat breast cancer is guided by clinical classification of the tumor as ER positive or negative, PR positive or negative and HER2 positive or negative. The presence, absence or combination of these biomarkers in patient tumors informs the selection of prescribed drugs, which include the anti-estrogen therapies Tamoxifen and aromatase inhibitors, as well as agents that directly target HER2, such as Herceptin and Tykerb. These treatments may slow or stop cancer growth and are currently considered the most successful treatments for breast cancer. However, because TNBC patients are negative for ER, PR and HER2, the treatment options for these patients are limited. In particular, the targeted therapies, including Herceptin, Tykerb and anti-estrogen treatments, are not effective for these patients.

Combinations of conventional chemotherapy work by stopping the function of cancer cells through a variety of mechanisms. Chemotherapies are usually not targeted at any specific differences between cancer cells and normal cells. Rather, they kill cancer cells because cancer cells generally grow more rapidly than normal cells and, as a result, are relatively more affected by the chemotherapy than normal cells. Because CSCs exhibit mechanisms of resistance, including a slower rate of growth than other cancer cells, they are often not susceptible to conventional chemotherapy. As a result, the treatments may succeed at initially decreasing tumor burden but ultimately fail to kill the CSCs. For example, in a study conducted at Baylor College of Medicine, in which biopsies were taken from breast cancer patients both before and after conventional chemotherapy treatment, the percentage of CSCs increased over the 12-week treatment period, indicating the survival of these cells.

If tumors recur, which happens more often in TNBC than other breast cancers, further therapy with conventional chemotherapy is generally palliative, not curative, as the CSCs are able to metastasize and spread to other sites in the body.

VS-507

Overview

We are currently evaluating VS-507 in preclinical studies as a potential therapy for breast cancer. Our scientific co-founders identified VS-507 using the proprietary technology that we license from the Whitehead Institute and published the results in the peer reviewed scientific journal *Cell* in 2009. We hold an exclusive license from the Whitehead Institute for use of VS-507 in treating cancer. We expect to file an IND with the FDA in late 2012 to initiate a Phase 1 clinical trial of VS-507.

We believe VS-507 targets CSCs by disrupting signaling inside these cells. A group of scientific researchers recently reported in the *Proceedings of the National Academy of Sciences of the United States of America*, or *PNAS*, that VS-507's activity may be mediated through the blockade of the Wnt/beta-catenin cell signaling pathway. Numerous research reports, including a 2011 paper published in *Cell* by our scientific co-founder Robert Weinberg, describe a critical role of the Wnt/beta-catenin signaling pathway in the development and maintenance of CSCs.

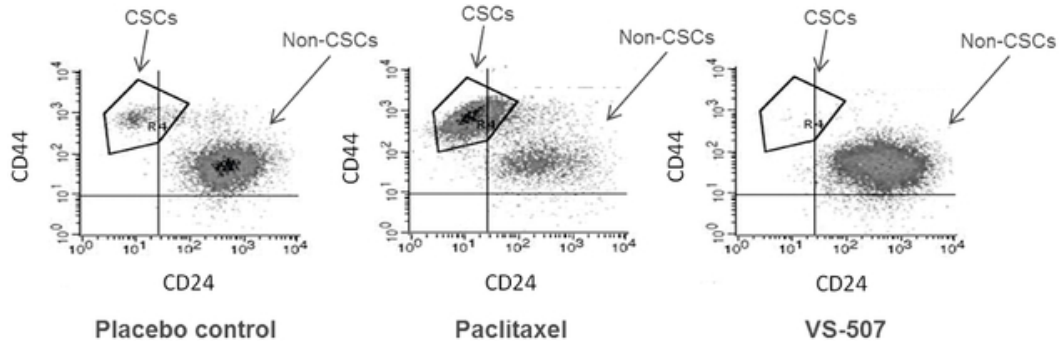
Wnts are a family of proteins that bind to receptor proteins, called Frizzled receptors, on the tumor cell surface. We believe that blocking Wnt function could dramatically impair survival and growth of CSCs. However, Wnt signaling is extremely complex, involving 19 different Wnt proteins stimulating through 10 different Frizzled receptors. While it may be possible to develop a small molecule or antibody that can block binding of one or perhaps a few Wnts to their receptors, such a drug likely would not effectively eliminate CSCs because other Wnt and Frizzled proteins that remain unblocked would be sufficient to maintain CSC function.

A potential breakthrough solution to this problem has come through the identification of the LRP6 protein, which interacts with multiple Wnt proteins and appears to be necessary for the development and maintenance of CSCs. LRP6 may represent a single common point of the Wnt system that can be targeted to kill CSCs. In the *PNAS* study referenced above, VS-507 decreased the levels of LRP6 protein *in vitro* and blocked the ability of Wnt proteins to stimulate beta-catenin, a signaling protein that regulates genes responsible for CSC function. We believe this disruption of the Wnt/beta-catenin signaling pathway is responsible for the inhibitory effects of VS-507 on CSCs that we have observed in preclinical studies.

Preclinical development

We are conducting a comprehensive preclinical program to study VS-507 as a potential treatment for breast cancer. Key results of this program to date, based on experiments conducted by our scientific co-founders, are summarized below.

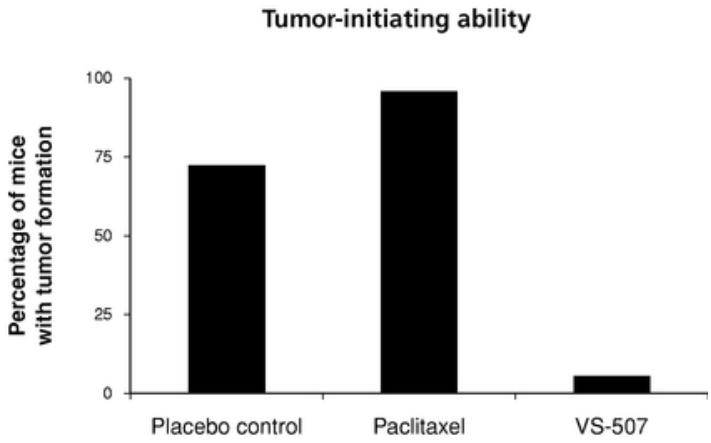
Laboratory studies. The effect of VS-507 on CSCs as compared to other cancer cells was evaluated *in vitro*. We believe that a biomarker useful for identifying breast CSCs is the expression ratio of the cell surface proteins CD44 to CD24, which can be measured for each individual cell using a method known as flow cytometry. Using this method, the amount of each protein is measured on the cell surface and the number of CSCs in a cell culture is determined by quantifying cell populations based on their expression of CD44 and CD24. As originally reported in *PNAS* in 2003, breast CSCs express high levels of CD44 and low levels of CD24 relative to other types of breast cancer cells. This differential expression is represented in the figure below as an increase in the shading in the top left portion of the flow cytometry plot. Treatment of a breast cancer cell line containing CSCs with VS-507 resulted in a decrease in the population of CSCs compared to the placebo control. In contrast, treatment with paclitaxel resulted in an increase in the population of CSCs compared to the placebo control. We believe that the opposing actions of VS-507 and paclitaxel are due to a selective effect of VS-507 on the killing of CSCs not observed with paclitaxel treatment.



Gene expression analysis. Opposing effects of VS-507 and paclitaxel also were shown by gene expression analysis. Human breast cancer cells were treated in culture with either VS-507 or paclitaxel

for one week and then incubated in the absence of drug for three weeks prior to analysis. The two populations were subjected to comparative global gene expression analysis, which can identify the genes that have the greatest differential change in expression in response to treatment. The panel of genes exhibiting the greatest differential change in this analysis comprise a gene expression signature that may be used for the identification of CSCs. In this experiment, VS-507 and paclitaxel had opposing actions on biomarkers of CSCs and genes known to be commonly expressed in epithelial tissue types. Unlike treatment with paclitaxel, treatment with VS-507 resulted in the loss of expression of CSC-associated genes. Expression of these genes is correlated with poor-prognosis tumors.

Mouse models of breast cancer. The functional presence of CSCs was assessed by evaluating *in vivo* tumor-initiating, or tumor-forming, ability after chemical compound treatment. In these experiments, a human breast cancer cell line containing a mixture of CSCs and other cancer cells was treated with VS-507, paclitaxel or a placebo control *in vitro* for seven days and expanded in culture for at least 14 days in the absence of treatment. The cells were then injected into mice. As shown in the figure below, treatment of these cells with VS-507 resulted in the formation of tumors in fewer mice than treatment with paclitaxel. These findings suggest that CSCs within breast cancer cell populations may be resistant to paclitaxel but sensitive to treatment with VS-507.



Mouse model of metastatic breast cancer. To specifically evaluate the effects of a therapeutic compound on the metastatic potential of cells following treatment, murine breast cancer cells treated *in vitro* with VS-507, paclitaxel or a placebo control were injected into the tail vein of mice and the number of metastases that subsequently appeared in the lungs was measured. After three weeks of growth of these cells *in vivo*, mice injected with cells that had been treated with VS-507 displayed a four-fold reduction in metastatic burden compared to the placebo control while, in contrast, mice injected with cells that had been treated with paclitaxel displayed a two-fold increase in metastatic burden compared to the placebo control.

VS-507 clinical development plan

Assuming successful completion of preclinical studies, we anticipate filing an IND with the FDA to initiate clinical trials of VS-507. If this application becomes effective, we anticipate initiating a dose escalation portion of a Phase 1 clinical trial in patients with advanced solid tumors. The dose escalation portion of the Phase 1 clinical trial would be designed to determine the maximum tolerated dose of VS-507. We also plan to assess safety and tolerability of VS-507 in this portion of the trial.

Upon identification of the maximum tolerated dose, we plan to enroll an expanded cohort of breast cancer patients to further assess the safety of VS-507 and evaluate efficacy on a preliminary basis in accordance with Response Criteria in Solid Tumors, or RECIST, measurement guidelines, and based on the presence of CSC-specific biomarkers. RECIST has traditionally been used as a standard measure of activity in clinical trials. However, because RECIST is based on gross changes in the size of tumor lesions of more than 30%, it is possible that changes in the tumor burden following selective targeting of CSCs in a single-agent, maximum-tolerated-dose study will not be detected using RECIST. As a result, we believe that sensitive CSC-specific biomarkers may be useful in conjunction with RECIST to quantify the effect of VS-507 on CSCs.

VS-4718 / VS-5095

Overview

We are currently evaluating VS-4718 and VS-5095 as potential therapies for cancers with a high percentage of CSCs. We identified the CSC-targeted activity of these compounds using our proprietary technology and hold worldwide exclusive rights to these compounds and their use. We expect to file an IND with the FDA in early 2013 to initiate a Phase 1 clinical trial of one of VS-4718 or VS-5095.

We believe VS-4718 and VS-5095 target CSCs through inhibition of FAK signaling. FAK expression is greater in many tumor types compared to normal tissue, particularly in cancers that have a high invasive and metastatic capability. The contact between epithelial cancer cells and connective tissue stimulates FAK signaling. However, epithelial cancer cells that undergo EMT acquire the ability to survive in the absence of contact with connective tissue. We believe that FAK signaling in CSCs may be maintained through alternative mechanisms, thus providing CSCs the ability to survive in the absence of cell contact. Accordingly, we believe that FAK signaling may be a central component of CSC biology that allows CSCs to survive after exiting from a tumor mass and enable metastasis to other sites in the body.

In 2009, our scientific co-founder Robert Weinberg reported in *PNAS* that in a mouse model of breast cancer FAK signaling was required to enable lung metastasis. Epithelial cells, which lack the ability to increase their FAK signaling activity through alternative mechanisms, remained non-metastatic in this model and did not survive dissemination to the lungs. In addition, researchers at McGill University reported in *PNAS* that in a genetically modified mouse model the specific deletion of FAK from the mammary cells prevented primary tumor formation and metastasis.

Scientific research suggests that increased FAK expression and activity is associated with metastatic progression and poor prognosis in multiple cancer types. For example, a 2009 retrospective study published in the *Journal of Clinical Investigation* identified the amplification, or increase in number, of the gene encoding FAK in a large percentage of breast cancers. This gene amplification, and resulting high FAK expression, significantly correlated with the progression of early stage, primary breast cancer to advanced metastatic disease. In an analysis of 295 breast cancer patients that was part of this study, elevated FAK expression was a marker of poor survival. The correlation of elevated FAK expression with poor survival was more significant than and independent of other commonly used clinical parameters, such as hormone receptor status. We believe targeted disruption of the FAK signaling pathway with VS-4718 or VS-5095 may reduce both the primary tumor burden and the ability of CSCs to form metastases.

Preclinical development

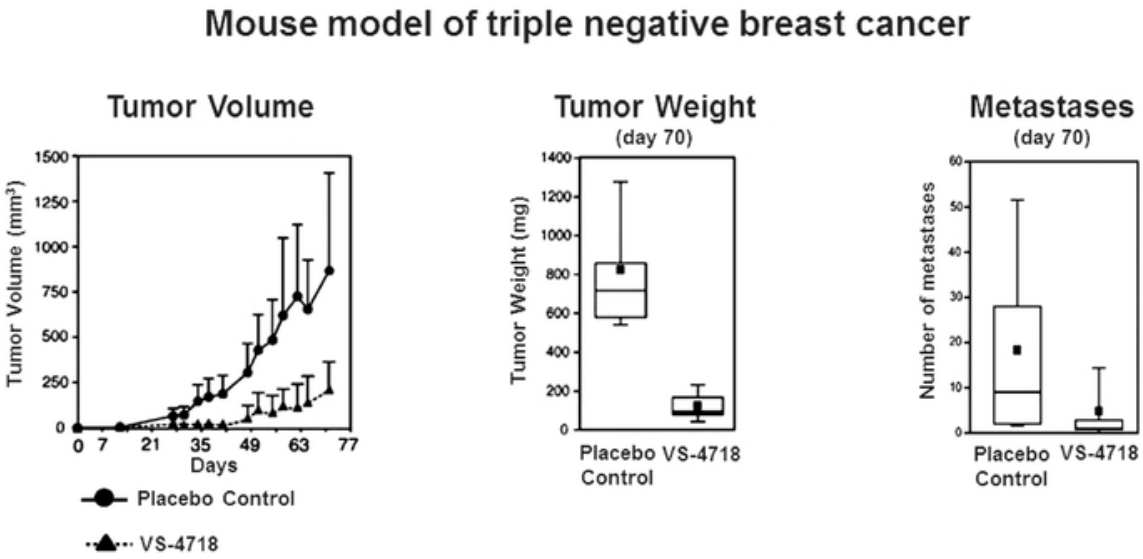
We are conducting a preclinical program to study VS-4718 and VS-5095 as potential treatments for breast and other cancers associated with increased FAK activity. Key results to date from preclinical

studies of VS-4718 performed by our licensor are summarized below. Comparable studies conducted to date of VS-5095 generally have provided similar overall results as the VS-4718 results.

Biochemical and cellular tests. In biochemical testing, VS-4718 inhibited purified FAK kinase and demonstrated *in vitro* selectivity against a panel of 107 different protein kinases. In addition, in various *in vitro* assessments of cell proliferation using our EMT technology, VS-4718 exhibited potent activity and up to a 25-fold preferential effect, or selectivity, for CSCs as compared to other types of cancer cells.

Pharmacokinetics and tolerability in mice. VS-4718 was well tolerated in mice after both acute and chronic dosing. VS-4718 also exhibited acceptable pharmacokinetics in mice. Pharmacokinetics is the process by which a drug is absorbed, distributed and metabolized in the body. In mouse models assessing pharmacodynamics, a single dose of VS-4718 inhibited FAK activity in tumors over a 12-hour period. Pharmacodynamics refers to the biochemical and physiological effect of a drug on the body.

Mouse models of breast cancer. VS-4718 has exhibited tumor growth inhibition and reduction of metastatic burden in several mouse models of breast cancer. In one experiment, VS-4718 was tested in a model in which TNBC cells were implanted into a mouse and the tumor was allowed to develop. Upon tumor formation, the mice were treated with VS-4718 in drinking water at a concentration of 0.5 mg/ml or a placebo control beginning at day 12 through the end of the experiment. As shown in the figure below, the tumor volume in the VS-4718 treatment group was significantly smaller than in the placebo group from day 27 through the end of the experiment. In addition, at day 70 the weight of the primary tumor and the number of lung metastases in the VS-4718 treatment group were both significantly less than in the placebo group.



The vertical line on each data point in the tumor volume figure above represents the standard deviation from the mean. The box and vertical line for each data point in the tumor weight and metastases figures above show the distribution of the data. The square data point inside the box represents the mean. The bottom of the box represents the 25th percentile, the middle line in the box represents the median and the top of the box represents the 75th percentile. The vertical lines projecting from the bottom and top of the box represent the 5th and 95th percentiles.

VS-4718 / VS-5095 development plan

We are progressing both VS-4718 and VS-5095 through additional preclinical efficacy and toxicology studies. It is our intention to select only one of these compounds for an IND filing. Upon selection of the lead candidate and assuming successful completion of preclinical studies, we anticipate filing an IND with the FDA to initiate clinical trials of this product candidate. If this application becomes effective, we anticipate initiating a dose escalation portion of a Phase 1 clinical trial in patients with advanced solid tumors. The dose escalation portion of the Phase 1 clinical trial would be designed to determine the maximum tolerated dose. We also plan to assess safety and tolerability in this portion of the trial.

Upon identification of the maximum tolerated dose, we plan to enroll an expanded cohort of patients with breast and other cancers associated with increased FAK activity to further assess the safety of the product candidate and evaluate efficacy on a preliminary basis in accordance with RECIST measurement guidelines, and based on the presence of CSC-specific biomarkers. As with VS-507, it is possible that changes in the tumor burden following selective targeting of CSCs in a single-agent, maximum-tolerated-dose study will not be detected using RECIST. As a result, we believe that sensitive CSC-specific biomarkers may be useful in conjunction with RECIST to quantify the effect on CSCs following treatment.

NEW CHEMICAL ENTITIES (NCEs)

We have initiated NCE programs on more than 10 series of chemical compounds identified using our proprietary EMT technology along with high-throughput screening methods. In addition, we have synthesized several drug candidates that are chemically similar to VS-507 and are currently optimizing their activity in blocking the Wnt/beta-catenin signaling pathway and CSC survival.

We evaluate the activity of chemical compounds *in vitro* by measuring their potency and selectivity against CSCs. In general, the more potent a drug is, the lower the dose required for a therapeutic effect. In an *in vitro* assessment of cell proliferation, one of the series of NCE compounds that we have identified has exhibited potent activity and greater than 10-fold selectivity for CSCs as compared to other types of cancer cells. A second series of compounds has shown potent activity and greater than 50-fold selectivity for killing of CSCs compared to its effects on other types of cancer cells. Compounds from our NCE programs also have demonstrated preclinical activity in a broad range of cancer cells, including breast cancer cell lines derived from TNBC tumors in which a high percentage of CSCs have been identified. We are currently evaluating additional proprietary product candidates from our NCE programs in preclinical studies for their use in breast and other cancers.

INTELLECTUAL PROPERTY

We aggressively strive to protect the proprietary technology that we believe is important to our business, including seeking and maintaining patents intended to cover our products and compositions, their methods of use and processes for their manufacture, as well as our diagnostic, biomarker, patient selection and drug discovery technologies and any other inventions that are commercially important to the development of our business. We also 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.

Our success will depend 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, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and proprietary rights of third parties. We also rely on know-how, continuing technological innovation and in-licensing opportunities to develop and maintain our

proprietary position. We seek to obtain domestic and international patent protection, and endeavor to promptly file patent applications for new commercially valuable inventions.

We license a portfolio of patent applications owned by the Whitehead Institute, Harvard and MIT. As of December 31, 2011, we hold exclusive licenses from the Whitehead Institute to three pending U.S. patent applications, as well as foreign counterparts to these patent applications, and one application under a Patent Cooperation Treaty, or PCT application.

One family of applications licensed from the Whitehead Institute under our drug discovery platform license agreement includes claims covering: methods of identifying compounds that inhibit the growth or survival of CSCs, methods of identifying CSCs and methods of treating cancer, including methods of selecting courses of treatment for cancer therapy based, for example, on the presence of a biomarker. The application also includes claims to methods of using certain compounds, identified for example by the claimed screening technology, in the treatment of cancer. Any U.S. or EU patents that may issue from this application would have a statutory expiration date in 2029.

We also license two families of patent applications from the Whitehead Institute under our cancer diagnostic license agreement that include claims covering: additional methods of identifying CSCs, *in vitro* methods of creating CSCs, for example through activation of the EMT process, progenitor cells and uses for those cells, methods of determining the metastatic potential of a tumor and methods of diagnosing, preventing and treating cancer metastasis. Any U.S. patents that may issue from these applications would have a statutory expiration date in 2025 or 2026.

We also license from the Whitehead Institute under our cancer diagnostic license agreement a PCT application that includes claims covering compositions, such as cell cultures, that include compounds that can induce epithelial cells to undergo an EMT process, methods of inducing epithelial cells to undergo an EMT process and methods of preparing progenitor cells from epithelial cells. Any U.S. patents that may issue from U.S. national stage applications claiming priority from this PCT application would have a statutory expiration date in 2031.

We have an agreement with the Broad Institute, which grants us under certain circumstances the first right to negotiate a license for intellectual property. This intellectual property includes patent applications and patents covering the use of biomarkers related to the EMT process. This intellectual property also includes compounds that can be used for treatment of cancer. An example is a compound that is identified by screening the effects of compounds on CSCs, notably CSCs created through the EMT process.

We also exclusively license a portfolio of patent applications relating to FAK inhibitors from Poniard Pharmaceuticals, Inc., or Poniard. As of December 31, 2011, we hold licenses from Poniard to four patent applications, as well as foreign counterparts to these patent applications. One of these patent applications is owned by The Scripps Research Institute, or Scripps, and licensed to Poniard and the other three are owned by Poniard. The patent application owned by Scripps includes claims covering the composition of matter of compounds, which, for example, can inhibit FAK, and methods of using these compounds to treat disorders such as cancer. Any U.S. or EU patents that may issue from this application would have a statutory expiration date in 2028. The patent applications owned by Poniard include claims covering oral formulations of kinase inhibitors, such as FAK inhibitors, and methods of use thereof, methods of synthesis of certain compounds, for example, certain FAK inhibitors, and methods of use thereof, and methods of using a compound to promote apoptosis in tumor cells. Any U.S. or EU patents that may issue from these applications would have a statutory expiration date in 2030 or 2031.

We have filed and own one patent application directed to formulations of VS-507 and one patent application directed to analogues of VS-507. Any U.S. or EU patents that may issue from these applications would have a statutory expiration date in 2032 or 2033.

We may rely, in some circumstances, on trade secrets to protect our technology. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by confidentiality agreements with our employees, consultants, scientific advisors and contractors. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our consultants, contractors or collaborators use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

LICENSES

Whitehead Institute for Biomedical Research

Drug discovery platform license agreement

In October 2010, we entered into an exclusive license agreement with the Whitehead Institute, or the drug discovery platform license agreement, which we amended and restated in January 2012, both on its own behalf and as sole and exclusive agent of Harvard and MIT. Under the drug discovery platform license agreement, we acquired an exclusive, royalty-bearing, worldwide license under patent rights owned by the Whitehead Institute, Harvard and MIT to develop, make, use and sell products covered by the licensed patent rights, including VS-507 for use in treating cancer, and to develop and perform licensed processes, in each case, for all human therapeutic, prognostic and diagnostic uses. These exclusive licensed patent rights are described in more detail above under "Intellectual Property."

We are required to use commercially reasonable efforts to develop and commercialize licensed products under the agreement. In particular, we are required to fulfill specific development and regulatory milestones by particular dates and, during each calendar year, either spend a specified amount for research and development, actively conduct one or more clinical trials for a licensed product or a product identified using a licensed process that does not constitute a licensed product, which we refer to as an identified product, prepare, file or pursue a filed application for regulatory approval of a licensed product or an identified product, or launch or sell a licensed product or identified product.

Under the agreement, we paid the Whitehead Institute an upfront license fee and reimbursed patent related fees and costs incurred by the Whitehead Institute, Harvard and MIT totaling $104,000 in the aggregate and issued 166,664 shares of our common stock to the Whitehead Institute and entities and individuals affiliated with the Whitehead Institute.

We also agreed to pay the Whitehead Institute annual license maintenance fees, milestone payments, royalties as a percentage of net sales and a percentage of sublicense income that we receive. Annual license maintenance fees are creditable against royalties, which are described below, earned during the same calendar year. Milestone payments are triggered upon the achievement of specified development, regulatory and commercialization milestones and are not creditable against the royalties described below. For each licensed product, we agreed to make milestone payments of up to an aggregate of $1,560,000 plus an additional amount for each subsequent approval of additional indications for a maximum number of licensed products. For each identified product that is not a licensed product, we agreed to make milestone payments of up to an aggregate of $815,000 plus an additional amount for

each subsequent approval of additional indications for a maximum number of identified products. Each type of specified milestone payment is payable only for each of the maximum number of licensed products and the maximum number of identified products, as the case may be, to achieve the applicable milestone. In addition, a separate milestone payment is due upon the first commercial sale of each licensed product or identified product that is a diagnostic or prognostic test. A single additional milestone payment is due for the first issuance of licensed patent rights in the United States, the United Kingdom, France, Germany, Spain or Italy. The royalty rate is in the low single digits as a percentage of net sales for licensed products that are therapeutics, the mid single digits for licensed products that are diagnostics or prognostics and less than one percent for identified products.

The Whitehead Institute, Harvard and MIT retain the right to, and may grant licenses to other academic and non-profit institutions for the right to, practice the licensed patent rights for research, teaching and educational purposes. The Whitehead Institute, Harvard, MIT or any such other institution could seek to license to third parties any intellectual property rights that it discovers using the licensed patent rights while pursuing these purposes. Under the agreement, we have a right, subject to the Whitehead Institute's obligations under third party research funding agreements, to negotiate a license for any compounds identified prior to a specified date in the Whitehead Institute's laboratory run by Dr. Weinberg that selectively target CSCs generated by induction through the EMT process.

After a specified period of time, if a third party requests to sublicense the patent rights for a product or process that is not directly competitive with our products or processes, we must enter into good-faith negotiations to grant a sublicense for such proposed product or process. If we do not grant a sublicense within a specified period of time after receiving a written request, the Whitehead Institute may grant a license to the third party and our rights in the field of use of such sublicense will terminate. Additionally, after a specified period of time, if we are not actively conducting high-throughput screening using the licensed patent rights to identify product candidates, then, except for any rights directed to uses that we are actively developing, the Whitehead Institute may convert our license to the licensed patent rights from exclusive to non-exclusive.

We have the right to terminate the agreement for any reason upon at least 90 days' prior written notice. The Whitehead Institute has the right to terminate the agreement if we and all of our sublicensees cease to carry on business related to the agreement for a specified period of time, we fail to pay any amounts due and payable under the agreement to the Whitehead Institute, subject to a grace period, we materially breach the agreement and fail to cure such breach within a specified grace period or we or a sublicensee challenge the licensed patent rights in a legal or administrative proceeding. The agreement otherwise terminates upon the expiration or abandonment of all licensed patents and patent applications.

Cancer diagnostic license agreement

In October 2010, we entered into a separate license agreement with the Whitehead Institute, or the cancer diagnostic license agreement, under which we acquired a non-exclusive, worldwide license to patent rights owned by the Whitehead Institute for research purposes. In December 2011, we amended and restated this agreement with the Whitehead Institute. Under the amended and restated cancer diagnostic license agreement, we acquired an exclusive, royalty-bearing, worldwide license under these patent rights to develop, make, use and sell products covered by the licensed patent rights and to develop and perform services using a licensed product or the practice of the licensed patent rights for or on behalf of a third party, in each case, for cancer diagnostics and companion clinical uses. These licensed patent rights are described in more detail above under "Intellectual Property."

Under the agreement, we paid the Whitehead Institute upfront license fees and expect to reimburse patent related fees and costs incurred by the Whitehead Institute totaling $70,000 in the aggregate. We also agreed to pay the Whitehead Institute annual license maintenance fees, milestone payments, royalties as a percentage of net sales and a percentage of sublicense income that we receive. Annual license maintenance fees are creditable against royalties, which are described below, earned during the same calendar year. Milestone payments of up to an aggregate of $825,000 are triggered upon the achievement of specified regulatory and commercialization milestones and are not creditable against the royalties described below. The royalty rate is in the mid single digits as a percentage of net sales.

If we are required to pay royalties to a third party in consideration of a license or similar right in order to make, use or sell a licensed product or licensed service, then we may deduct up to 50% of the amounts paid to such third party, subject to specified limitations, from the payments that we owe to the Whitehead Institute for such licensed product or licensed service.

We are required to use commercially reasonable efforts to develop and commercialize licensed products or licensed services under the agreement. In particular, we are required to fulfill specific development, regulatory and commercialization milestones by particular dates and to commit a specified number of full time staff equivalents toward the development of a licensed product or licensed service until the first commercial sale of a licensed product or performance of a licensed service.

The Whitehead Institute retains the right to, and may grant licenses to other academic and non-profit institutions for the right to, practice the licensed patent rights for research, teaching and educational purposes. The Whitehead Institute or any such other institution could seek to license to third parties any intellectual property rights that it discovers using the licensed patent rights while pursuing these purposes.

After a specified period of time, if a third party requests to sublicense the patent rights for a product or service that is not directly competitive with our products or services, we must enter into good-faith negotiations to grant a sublicense for such proposed product or service. If we do not grant such a sublicense within a specified period of time after receiving a written request, the Whitehead Institute may grant a license to the third party and our rights in the field of use of such sublicense will terminate. Additionally, after a specified period of time, if the market is not being reasonably served by us, as determined by the Whitehead Institute, and a third party requests to sublicense the patent rights for a product or service that is directly competitive with our products or services, we must enter into good-faith negotiations to grant a sublicense for such proposed product or service. If we do not grant such a sublicense within a specified period of time after receiving a written request, we and the Whitehead Institute have agreed to mutually select a qualified independent third party to set commercially reasonable terms and conditions consistent with similar technology in the industry under which we would sublicense our rights for such proposed product or service to the third party. Additionally, after a specified period of time, if we are not actively conducting efforts to validate, use or commercialize a license product or licensed service, then the Whitehead Institute may convert our license to the licensed patent rights from exclusive to nonexclusive.

We have the right to terminate the agreement for any reason upon at least 90 days' prior written notice. The Whitehead Institute has the right to terminate the agreement if we and all of our sublicensees cease to carry on business related to the agreement for a specified period of time, we fail to pay any amounts due and payable under the agreement to the Whitehead Institute, subject to a grace period, we materially breach the agreement and fail to cure such breach within a specified grace period or we or a sublicensee challenge the licensed patent rights in a legal or administrative proceeding. The agreement otherwise terminates upon the expiration or abandonment of all licensed patents and patent applications.

Broad Institute of MIT and Harvard University

In October 2010, the Broad Institute granted to us the first right to negotiate a license in good faith for specified intellectual property owned by the Broad Institute if we have not breached the terms of the drug discovery platform license agreement described above. Following written notice of the availability of such intellectual property for licensing by the Broad Institute to us, the Broad Institute has agreed not to negotiate with any other party during our right of first negotiation period. If we and the Broad Institute are unable to negotiate a license within such period, the Broad Institute may then offer the intellectual property for licensing to other parties. The intellectual property subject to this right of first negotiation is described in more detail above under "Intellectual Property."

Poniard Pharmaceuticals, Inc.

In November 2011, we entered into a license agreement with Poniard under which we acquired an exclusive, worldwide license under patent rights and know-how owned or controlled by Poniard to develop, make, use and sell compounds and products covered by the licensed patent rights for the diagnosis, treatment, prevention or control of all human diseases and conditions. The licensed compounds include VS-4718 and VS-5095 and any other compounds covered by a licensed patent right under the agreement that have the inhibition of FAK as a primary mode of action. These licensed patent rights are described in more detail above under "Intellectual Property" and include patent rights owned by Scripps and licensed to Poniard. In accordance with the agreement between Poniard and Scripps, Scripps retains the right to grant non-exclusive licenses, without the right to sublicense, to nonprofit or academic institutions to use for any noncommercial research or education purposes any licensed patent rights owned by Scripps and licensed to Poniard.

Under the agreement, we paid Poniard an upfront license fee and agreed to pay Poniard milestone payments of up to an aggregate of $13,250,000 upon the achievement of specified development and regulatory milestones. We also agreed to issue to Poniard a warrant to purchase 142,857 shares of our common stock upon the first dosing of the first patient in our first Phase 1 clinical trial of a licensed product. The exercise price of such warrant would be equal to the average closing price of our common stock during the five trading days preceding such issue date. In addition, we agreed to pay low to mid single digit royalties to Poniard as a percentage of net sales of licensed products. Our obligation to pay royalties continues on a country by country basis until the expiration of all licensed patent rights covering licensed products in such country. If the royalty term under our agreement with Poniard expires with respect to a licensed product in a country and Poniard continues to have royalty payment obligations under its agreement with Scripps with respect to our net sales of licensed products in such country, we agreed to pay Poniard the royalty amount due to Scripps with respect to net sales of such licensed product in such country.

Poniard is responsible for all amounts payable to any third party under any agreement to which Poniard was a party as of the date of our agreement that are applicable to rights licensed to us, including amounts payable to Scripps with respect to the patent rights owned by Scripps and licensed to Poniard. If we license or acquire technology from a third party in order to develop or commercialize a licensed product and are required to pay such third party license fees, milestone payments, royalties or other amounts, then we may deduct up to 50% of the amount paid to such third party from the payments that we owe to Poniard for such licensed product. This deduction is subject to specified limitations, including that in no event will any such deduction reduce a payment that we owe to Poniard to less than 50% of the otherwise applicable amount.

We are required to use commercially reasonable efforts to develop and, subject to regulatory approval, commercialize licensed products in the United States, the United Kingdom, France, Germany and Japan.

We have the right to terminate the agreement or any portion of our licensed rights under the agreement upon at least 90 days' prior written notice. We and Poniard each have the right to terminate the agreement if the other party materially breaches the agreement and fails to cure such breach within a specified grace period, subject to the right of either party to submit a dispute to arbitration. The agreement otherwise terminates upon the last to expire licensed patent right covering a licensed product.

COMPETITION

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technology, development experience and scientific knowledge 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.

There are other companies working to develop therapies that target CSCs. These companies include divisions of large pharmaceutical companies including Astellas Pharma Inc., Sanofi-Aventis U.S. LLC, GlaxoSmithKline plc, Boehringer Ingelheim GmbH, Pfizer Inc. and others. There are also biotechnology companies of various sizes that are developing therapies against CSCs, including OncoMed Pharmaceuticals, Inc., Boston Biomedical Inc. and Stemline Therapeutics, Inc.

Many of our competitors may have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. 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. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

The key competitive factors affecting the success of all of our product candidates, if approved, are likely to be their efficacy, safety, convenience, price, the effectiveness of companion diagnostics in guiding the use of related therapeutics, the level of generic competition and the availability of reimbursement from government and other third-party payors.

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 regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic products. There are many generic products currently on the market for the indications that we are pursuing, and additional products are expected to become available on a generic basis over the coming years. If our therapeutic product candidates are approved, we expect that they will be priced at a significant premium over competitive generic products.

The most common methods of treating patients with cancer are surgery, radiation and drug therapy, including chemotherapy, hormone therapy and targeted drug therapy. There are a variety of available

drug therapies marketed for cancer. In many cases, these drugs are administered in combination to enhance efficacy. While our product candidates may compete with many existing drug and other therapies, to the extent they are ultimately used in combination with or as an adjunct to these therapies, our product candidates will not be competitive with them. Some of the currently approved drug therapies are branded and subject to patent protection, and others are available on a generic basis. Many of these approved drugs are well established therapies and are widely accepted by physicians, patients and third-party payors. In general, although there has been considerable progress over the past few decades in the treatment of cancer and the currently marketed therapies provide benefits to many patients, these therapies all are limited to some extent in their efficacy and frequency of adverse events, and none of them are successful in treating all patients. As a result, the level of morbidity and mortality from cancer remains high.

In addition to currently marketed therapies, there are also a number of products in late stage clinical development to treat cancer. These products in development may provide efficacy, safety, convenience and other benefits that are not provided by currently marketed therapies. As a result, they may provide significant competition for any of our product candidates for which we obtain market approval.

MANUFACTURING

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We currently rely, and expect to continue to rely, on third parties for the manufacture of our product candidates and any products that we may develop, other than small amounts of compounds that we may synthesize ourselves for preclinical testing. To date, we have obtained starting materials for our supply of the bulk drug substance for our product candidates from one third-party manufacturer. We obtain our supplies from this manufacturer on a purchase order basis and do not have a long-term supply arrangement in place. We do not currently have arrangements in place for redundant supply or a second source for bulk drug substance. If our current third-party manufacturer should become unavailable to us for any reason, we believe that there are several potential replacements, although we might incur some delay in identifying and qualifying such replacements.

All of our drug candidates are organic compounds of low molecular weight, generally called small molecules. We select compounds not only on the basis of their potential efficacy and safety, but also for their ease of synthesis and reasonable cost of their starting materials. We expect to continue to develop drug candidates that can be produced cost-effectively at third-party manufacturing facilities.

GOVERNMENT REGULATION

Government authorities in the United States, at the federal, state and local level, and in other countries extensively regulate, among other things, the research, development, testing, manufacture, including any manufacturing changes, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, import and export of pharmaceutical products, such as those we are developing.

United States drug approval process

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, the Public Health Service Act 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 United States requirements at any time during the product development process, approval process or after approval, may subject an applicant to a variety of administrative or

judicial sanctions, such as the FDA's refusal to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning 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 penalties.

The process required by the FDA before a drug may be marketed in the United States generally involves 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 become effective before human clinical trials may begin;

–> approval by an independent institutional review board, or IRB, at each clinical site before each 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 for each indication;

–> submission to the FDA of a new drug application, or NDA;

–> satisfactory completion of an FDA advisory committee review, if applicable;

–> satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is 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 drug's identity, strength, quality and purity; and

–> FDA review and approval of the NDA.

Preclinical studies

Preclinical studies include laboratory evaluation of product chemistry and formulation, as well as *in vitro* and animal studies to assess the potential for adverse events and in some cases to establish a rationale for therapeutic use. The conduct of preclinical studies is subject to federal regulations and requirements, including GLP regulations for safety/toxicology studies. An IND sponsor must submit 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, 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. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials 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. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical trials

Clinical trials involve the administration of the investigational new drug 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 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. In addition, an IRB at 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. 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 or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness.

–> *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 in adequate and well-controlled clinical trials to generate sufficient data to statistically confirm 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 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.

Marketing approval

Assuming successful completion of the required clinical testing, 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 product for one or more indications. Under federal law, the submission of most NDAs is additionally subject to a substantial application user fee, currently exceeding $1.8 million, and the sponsor of an approved NDA is also subject to annual product and establishment user fees, currently exceeding $98,000 per product and $520,000 per establishment. These fees are typically increased annually.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission before accepting them for filing to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA 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 of NDAs. Under these goals, the FDA has committed to review most such applications for non-priority products within 10 months, and most applications for priority

review products, that is, drugs that the FDA determines represent a significant improvement over existing therapy, within six months. These performance goals likely will be extended by several months when the Prescription Drug User Fee Act is reauthorized in 2012. The review process may be extended by the FDA for three additional months to consider certain information or clarification regarding information already provided in the submission. The FDA may also refer applications for novel drugs or products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. 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. In addition, before approving an NDA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP and integrity of the clinical data submitted.

The testing and approval process requires substantial time, effort and financial resources, and each may take many years to complete. Data obtained from clinical activities are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval on a timely basis, or at all. We may encounter difficulties or unanticipated costs in our efforts to develop our product candidates and secure necessary governmental approvals, which could delay or preclude us from marketing our products.

After the FDA's evaluation of the NDA and 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 drug 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 and refuse to approve the NDA.

Even 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 a 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, 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, some 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.

Fast track designation

The FDA is required to facilitate the development and expedite the review of drugs that are intended for the treatment of a serious or life-threatening condition for which there is no effective treatment and which demonstrate the potential to address unmet medical needs for the condition. Under the fast

track program, the sponsor of a new drug candidate may request the FDA to designate the product for a specific indication as a fast track product concurrent with or after the filing of the IND for the product candidate. The FDA must determine if the product candidate qualifies for fast track designation within 60 days after receipt of the sponsor's request.

In addition to other benefits, such as the ability to use surrogate endpoints and have greater interactions with the FDA, the FDA may initiate review of sections of a fast track product's NDA before the application is complete. This rolling review is available if the applicant provides and the FDA approves a schedule for the submission of the remaining information and the applicant pays 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.

Priority review

Under FDA policies, a product candidate may be eligible for priority review, or review within a six-month time frame from the time a complete application is received. Products regulated by the FDA's Center for Drug Evaluation and Research, or CDER, are eligible for priority review if they provide a significant improvement compared to marketed products in the treatment, diagnosis or prevention of a disease. A fast track designated product candidate would ordinarily meet the FDA's criteria for priority review.

Accelerated approval

Under the FDA's accelerated approval regulations, the FDA may approve a drug for a serious or life-threatening illness that provides meaningful therapeutic benefit to patients over existing treatments based upon a surrogate endpoint that is reasonably likely to predict clinical benefit. In clinical trials, a surrogate endpoint is a measurement of laboratory or clinical signs of a disease or condition that substitutes for a direct measurement of how a patient feels, functions or survives. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. A product 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.

Orphan drugs

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which is generally defined as a disease or condition that affects fewer than 200,000 individuals in the United States. Orphan drug designation must be requested before submitting an NDA. After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. The first NDA applicant to receive FDA approval for a particular active ingredient to treat a particular disease with FDA orphan drug designation is entitled to a seven-year exclusive marketing period in the United States for that product, for that indication. During the seven-year exclusivity period, the FDA may not approve any other applications to market the same drug for the same orphan indication, except in limited circumstances, such as a showing of clinical superiority to the product with orphan

drug exclusivity in that it is shown to be safer, more effective or makes a major contribution to patient care. Orphan drug exclusivity does not prevent the FDA from approving a different drug for the same disease or condition, or the same drug for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the NDA application user fee.

Pediatric information

Under the Pediatric Research Equity Act of 2003, as amended and reauthorized by the Food and Drug Administration Amendments Act of 2007, or the FDAAA, an NDA or supplement to an NDA must contain data that are adequate to assess the safety and effectiveness of the drug 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. 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. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan drug designation.

The Hatch-Waxman act

Abbreviated new drug applications

In seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent with claims that cover the applicant's product or a method of using the product. Upon approval of a drug, each of the patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Drugs listed in the Orange Book can, in turn, be cited by potential competitors in support of approval of an abbreviated new drug application, or ANDA. Generally, an ANDA provides for marketing of a drug product that has the same active ingredients in the same strengths, dosage form and route of administration as the listed drug and has been shown to be bioequivalent through *in vitro* or *in vivo* testing or otherwise to the listed drug. ANDA applicants are not required to conduct or submit results of preclinical or clinical tests to prove the safety or effectiveness of their drug product, other than the requirement for bioequivalence testing. Drugs approved in this way are commonly referred to as "generic equivalents" to the listed drug, and can often be substituted by pharmacists under prescriptions written for the original listed drug.

The ANDA applicant is required to certify to the FDA concerning any patents listed for the approved product in the FDA's Orange Book, except for patents covering methods of use for which the ANDA applicant is not seeking approval. 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 indicate 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.

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, expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to the ANDA applicant.

The ANDA also will not be approved until any applicable non-patent exclusivity period, such as exclusivity for obtaining approval of a new chemical entity, for the referenced product has expired. Federal law provides a period of five years following approval of a drug containing no previously approved active moiety during which ANDAs for generic versions of those drugs cannot be submitted unless the submission contains a Paragraph IV challenge to a listed patent, in which case the submission may be made four years following the original product approval. Federal law provides for a period of three years of exclusivity during which the FDA cannot grant effective approval of an ANDA if a listed drug contains a previously approved active moiety, but FDA requires as a condition of approval new clinical trials conducted by or for the sponsor. 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. Under the Best Pharmaceuticals for Children Act, federal law also provides that periods of patent and non-patent marketing exclusivity listed in the Orange Book for a drug may be extended by six months if the NDA sponsor conducts pediatric studies identified by the FDA in a written request. For written requests issued by the FDA after September 27, 2007, the date of enactment of the FDAAA, the FDA must grant pediatric exclusivity no later than nine months prior to the date of expiration of patent or non-patent exclusivity in order for the six-month pediatric extension to apply to that exclusivity period.

Section 505(b)(2) new drug applications

Most drug products obtain FDA marketing approval pursuant to an NDA or an ANDA. A third alternative is a special type of NDA, commonly referred to as a Section 505(b)(2) NDA, which enables the applicant to rely, in part, on the FDA's previous approval of a similar product, or published literature, in support of its application.

505(b)(2) NDAs often provide an alternate path to FDA approval for new or improved formulations or new uses of previously approved products. Section 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. If the 505(b)(2) applicant can establish that reliance on the FDA's previous approval is scientifically appropriate, it 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 product 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.

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. As a result, approval of a 505(b)(2) NDA can be stalled until all the listed patents claiming the referenced product

have expired, until any non-patent exclusivity, such as exclusivity for obtaining approval of a new chemical entity, listed in the Orange Book for the referenced product has expired, and, in the case of a Paragraph IV certification and subsequent patent infringement suit, until the earlier of 30 months, settlement of the lawsuit or a decision in the infringement case that is favorable to the Section 505(b)(2) applicant.

Combination products

The FDA regulates combinations of products that cross FDA centers, such as drug, biologic or medical device components that are physically, chemically or otherwise combined into a single entity, as a combination product. The FDA center with primary jurisdiction for the combination product will take the lead in the premarket review of the product, with the other center consulting or collaborating with the lead center.

The FDA's Office of Combination Products, or OCP, determines which center will have primary jurisdiction for the combination product based on the combination product's "primary mode of action." A mode of action is the means by which a product achieves an intended therapeutic effect or action. The primary mode of action is the mode of action that provides the most important therapeutic action of the combination product, or the mode of action expected to make the greatest contribution to the overall intended therapeutic effects of the combination product.

Often it is difficult for the OCP to determine with reasonable certainty the most important therapeutic action of the combination product. In those difficult cases, the OCP will consider consistency with other combination products raising similar types of safety and effectiveness questions, or which center has the most expertise to evaluate the most significant safety and effectiveness questions raised by the combination product.

A sponsor may use a voluntary formal process, known as a Request for Designation, when the product classification is unclear or in dispute, to obtain a binding decision as to which center will regulate the combination product. If the sponsor objects to that decision, it may request that the agency reconsider that decision.

Overview of FDA regulation of companion diagnostics

We are developing *in vitro* and *in vivo* companion diagnostics for use in selecting the patients that we believe will respond to our cancer therapeutics.

FDA officials have issued draft guidance that, when finalized, would address issues critical to developing *in vitro* companion diagnostics, such as biomarker qualification, establishing clinical validity, the use of retrospective data, the appropriate patient population and when the FDA will require that the device and the drug be approved simultaneously. The draft guidance issued in July 2011 states that if safe and effective use of a therapeutic product depends on an *in vitro* diagnostic, then the FDA generally will require approval or clearance of the diagnostic at the same time that the FDA approves the therapeutic product. The FDA has yet to issue further guidance, and it is unclear whether it will do so, or what the scope would be.

The FDA previously has required *in vitro* companion diagnostics intended to select the patients who will respond to the cancer treatment to obtain Pre-Market Approval, or PMA, simultaneously with approval of the drug. Based on the draft guidance, and the FDA's past treatment of companion diagnostics, we believe that the FDA will require one or more of our *in vitro* companion diagnostics to obtain PMA for our companion diagnostics to identify patient populations suitable for our cancer therapies, such as the *in vitro* companion diagnostic for VS-507, VS-4818 or VS-5095. The review of these *in vitro* companion diagnostics in conjunction with the review of our cancer treatments involves coordination of review by CDER and by the FDA's Center for Devices and Radiological Health Office of In Vitro Diagnostics Device Evaluation and Safety.

PMA approval pathway

A medical device, including an *in vitro* diagnostic, or IVD, to be commercially distributed in the United States must receive either 510(k) clearance or PMA approval from the FDA prior to marketing. Devices deemed by the FDA to pose the greatest risk, such as life-sustaining, life supporting or implantable devices, or devices deemed not substantially equivalent to a previously 510(k) cleared device or a preamendment class III device for which PMA applications have not been called, are placed in Class III requiring PMA approval. The PMA approval pathway requires proof of the safety and effectiveness of the device to the FDA's satisfaction.

The PMA approval pathway generally takes from one to three years or even longer from submission of the application.

A PMA application for an IVD must provide extensive preclinical and clinical trial data. Preclinical data for an IVD includes many different tests, including how reproducible the results are when the same sample is tested multiple times by multiple users at multiple laboratories. The clinical data need to establish that the test is sufficiently safe, effective and reliable in the intended use population. In addition, the FDA must be convinced that a device has clinical utility, meaning that an IVD provides information that is clinically meaningful. A biomarker's clinical significance may be obvious, or the applicant may be able to rely upon published literature or submit data to show clinical utility.

A PMA application also must provide information about the device and its components regarding, among other things, device design, manufacturing and labeling. The sponsor must pay an application fee.

As part of the PMA review, the FDA will typically inspect the manufacturer's facilities for compliance with Quality System Regulation, or QSR, requirements, which impose elaborate testing, control, documentation and other quality assurance procedures.

Upon submission, the FDA determines if the PMA application is sufficiently complete to permit a substantive review, and, if so, the FDA accepts the application for filing. The FDA then commences an in-depth review of the PMA application. The entire process typically takes one to three years, but may take longer. The review time is often significantly extended as a result of the FDA asking for more information or clarification of information already provided. The FDA also may respond with a not approvable determination based on deficiencies in the application and require additional clinical trials that are often expensive and time-consuming and can substantially delay approval.

During the review period, an FDA advisory committee, typically a panel of clinicians, may be convened to review the application and recommend to the FDA whether, or upon what conditions, the device should be approved. Although the FDA is not bound by the advisory panel decision, the panel's recommendation is important to the FDA's overall decision making process.

If the FDA's evaluation of the PMA application is favorable, the FDA typically issues an approvable letter requiring the applicant's agreement to specific conditions, such as changes in labeling, or specific additional information, such as submission of final labeling, in order to secure final approval of the PMA. If the FDA concludes that the applicable criteria have been met, the FDA will issue a PMA for the approved indications, which can be more limited than those originally sought by the manufacturer. The PMA can include post-approval conditions that the FDA believes necessary to ensure the safety and effectiveness of the device, including, among other things, restrictions on labeling, promotion, sale and distribution. Failure to comply with the conditions of approval can result in material adverse enforcement action, including the loss or withdrawal of the approval.

Even after approval of a PMA, a new PMA or PMA supplement may be required in the event of a modification to the device, its labeling or its manufacturing process. Supplements to a PMA often

require the submission of the same type of information required for an original PMA, except that the supplement is generally limited to the information needed to support the proposed change from the product covered by the original PMA.

Clinical trials

A clinical trial is almost always required to support a PMA application. In some cases, one or more smaller Investigational Device Exemption, or IDE, studies may precede a pivotal clinical trial intended to demonstrate the safety and efficacy of the investigational device.

All clinical studies of investigational devices must be conducted in compliance with the FDA's requirements. If an investigational device could pose a significant risk to patients pursuant to FDA regulations, the FDA must approve an IDE application prior to initiation of investigational use. IVD trials usually do not require an IDE, as the FDA does not judge them to be a significant risk because the results do not affect the patients in the study. However, for a trial where the IVD result directs the therapeutic care of patients with cancer, we believe that the FDA would consider the investigation to present significant risk.

An IDE application must be supported by appropriate data, such as laboratory test results, showing that it is safe to test the device in humans and that the testing protocol is scientifically sound. The FDA typically grants IDE approval for a specified number of patients. A nonsignificant risk device does not require FDA approval of an IDE. Both significant risk and nonsignificant risk investigational devices require approval from IRBs at the study centers where the device will be used.

During the trial, the sponsor must comply with the FDA's IDE requirements for investigator selection, trial monitoring, reporting and record keeping. The investigators must obtain patient informed consent, rigorously follow the investigational plan and study protocol, control the disposition of investigational devices and comply with all reporting and record keeping requirements. Prior to granting PMA approval, the FDA typically inspects the records relating to the conduct of the study and the clinical data supporting the PMA application for compliance with applicable requirements.

Although the QSR does not fully apply to investigational devices, the requirement for controls on design and development does apply. The sponsor also must manufacture the investigational device in conformity with the quality controls described in the IDE application and any conditions of IDE approval that the FDA may impose with respect to manufacturing.

Post-market

After a device is on the market, numerous regulatory requirements apply. These requirements include: the QSR, labeling regulations, the FDA's general prohibition against promoting products for unapproved or "off label" uses, the Medical Device Reporting regulation, which requires that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur, and the Reports of Corrections and Removals regulation, which requires manufacturers to report recalls and field actions to the FDA if initiated to reduce a risk to health posed by the device or to remedy a violation of the FDCA.

The FDA enforces these requirements by inspection and market surveillance. If the FDA finds a violation, it can institute a wide variety of enforcement actions, ranging from a public warning letter to more severe sanctions such as: fines, injunctions and civil penalties; recall or seizure of products; operating restrictions, partial suspension or total shutdown of production; refusing requests for PMA approval of new products; withdrawing PMA approvals already granted; and criminal prosecution.

Other regulatory requirements

Any drug manufactured or distributed by us 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.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization. Regulatory approval of oncology products often requires that patients in clinical trials be followed for long periods to determine the overall survival benefit of the drug.

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 us and any third-party manufacturers that we may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the areas 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 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 Risk Evaluation and Mitigation Strategy 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 applications or supplements to approved applications, or suspension or revocation of product license approvals;

–> product seizure or detention, or refusal to permit the import or export of products; or

–> consent decrees, 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.

Additional provisions

Anti-kickback and false claims laws

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal laws have been applied to restrict certain marketing practices in the pharmaceutical industry in recent years. These laws include anti-kickback statutes and false claims statutes. The federal healthcare program anti-kickback statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally financed healthcare programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Violations of the anti-kickback statute are punishable by imprisonment, criminal fines, civil monetary penalties and exclusion from participation in federal healthcare programs. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. The majority of states also have statutes or regulations similar to the federal anti-kickback law and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

Physician drug samples

As part of the sales and marketing process, pharmaceutical companies frequently provide samples of approved drugs to physicians. The Prescription Drug Marketing Act, or the PDMA, imposes requirements and limitations upon the provision of drug samples to physicians, as well as prohibits states from licensing distributors of prescription drugs unless the state licensing program meets certain federal guidelines that include minimum standards for storage, handling and record keeping. In addition, the PDMA sets forth civil and criminal penalties for violations.

Foreign regulation

In order to market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we would need to obtain the necessary approvals by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from and be

longer than that required to obtain FDA approval. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others.

To date, we have not initiated any discussions with the European Medicines Agency or any other foreign regulatory authorities with respect to seeking regulatory approval for any of our products in Europe or in any other country outside the United States.

New legislation and regulations

From time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the testing, approval, manufacturing and marketing of products regulated by the FDA. For example, the FDAAA discussed above was enacted in 2007. In addition to new legislation, FDA regulations and policies are often revised or interpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether further legislative changes will be enacted or whether FDA regulations, guidance, policies or interpretations changed or what the effect of such changes, if any, may be.

Pharmaceutical coverage, pricing and reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any drug products for which we obtain regulatory approval. Sales of any of our product candidates, if approved, 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 such as Medicare and Medicaid, commercial health insurers and managed care organizations. The process for determining whether a payor will provide coverage for a drug product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the drug product once coverage is approved. Third-party payors may limit coverage to specific drug products on an approved list, or formulary, which might not include all of the approved drugs for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, we 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. Our product candidates may not be considered medically necessary or cost-effective. 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 enable us to maintain price levels high enough to realize an appropriate return on our investment in product development.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of drugs have been a focus in this effort. 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 to be cost-effective compared to other available therapies, they may not cover our products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products at a profit. The U.S. government, state legislatures and foreign 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 pharmaceuticals

such as the drug candidates that we are developing and could adversely affect our net revenue and results.

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 product 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 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 very 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. There can be no assurance that any country that has price controls or reimbursement limitations for drug products will allow favorable reimbursement and pricing arrangements for any of our products.

The marketability of any products for which we receive regulatory approval for commercial sale may 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 we expect will continue to increase the pressure on drug pricing. Coverage policies, third-party reimbursement rates and drug pricing regulation may change at any time. In particular, the Patient Protection and Affordable Care Act was enacted in the United States in March 2010 and contain provisions that may reduce the profitability of drug products, including, for example, increased rebates for drugs sold to Medicaid programs, extension of Medicaid rebates to Medicaid managed care plans, mandatory discounts for certain Medicare Part D beneficiaries and annual fees based on pharmaceutical companies' share of sales to federal health care programs. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

EMPLOYEES

As of December 31, 2011, we had 18 full-time employees, including a total of nine employees with M.D. or Ph.D. degrees. Of these full-time employees, 11 employees are engaged in research and development activities. None of our employees is represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

FACILITIES

We occupy approximately 7,484 square feet of office and laboratory space in Cambridge, Massachusetts under a lease that expires in October 2014. We believe that our facility is sufficient to meet our current needs and that suitable additional space will be available as and when needed.

LEGAL PROCEEDINGS

We are not currently a party to any material legal proceedings.

Management

The following table sets forth the name, age and position of each of our executive officers and directors as of December 31, 2011.

Name	Age	Position
Christoph Westphal, M.D., Ph.D.(2)	43	President, Chief Executive Officer and Director
Robert Forrester	48	Chief Operating Officer
Jonathan Pachter, Ph.D.	54	Vice President, Head of Research
Richard Aldrich(2)(3)	57	Director
John K. Clarke(1)	58	Director
Ansbert Gadicke, M.D.(2)	53	Director
Stephen Kraus(1)(3)	35	Director
Henri Termeer(1)(3)	65	Director

(1) *Member of the audit committee.*

(2) *Member of the nominating and corporate governance committee.*

(3) *Member of the compensation committee.*

Christoph Westphal, M.D., Ph.D. has served as our President and Chief Executive Officer since September 2011. He has served on our board of directors since August 2010 and as the Chairman of our board of directors since March 2011. Dr. Westphal has served as a partner of Longwood Fund, LP, a venture capital investment fund, since 2010. He served as the President of SR One, the corporate venture capital arm of GlaxoSmithKline, from 2010 until 2011. Dr. Westphal has previously been involved in founding a number of biotechnology companies as chief executive officer. Dr. Westphal co-founded Sirtris Pharmaceuticals, Inc., which was acquired by GlaxoSmithKline plc in 2008, and served as its Chief Executive Officer from 2004 to 2010. He also co-founded Alnara Pharmaceuticals, Inc., Acceleron Pharma, Inc., serving as its Chief Executive Officer in 2003, Alnylam Pharmaceuticals, Inc., serving as its Chief Executive Officer in 2002, and Momenta Pharmaceuticals, Inc., serving as its Chief Executive Officer in 2001. Dr. Westphal serves on the Board of Fellows of Harvard Medical School and the Board of Overseers for the Boston Symphony Orchestra and is a member of the Research Advisory Council at the Massachusetts General Hospital. He earned his M.D. from Harvard Medical School, his Ph.D. in genetics from Harvard University and his B.A. from Columbia University. We believe that Dr. Westphal is qualified to serve on our board of directors due to his experience in the life sciences industry as an entrepreneur and venture capitalist and his service on the boards of directors of other life sciences companies.

Robert Forrester has served as our Chief Operating Officer since March 2011. Mr. Forrester has previously held executive level positions at both private and public life sciences companies. Prior to joining us, Mr. Forrester served as Chief Operating Officer of Forma Therapeutics, Inc. from 2010 until 2011. Previously he served as Interim President and Chief Executive Officer of CombinatoRx, Inc., now Zalicus Inc., from 2009 until 2010 and as its Executive Vice President and Chief Financial Officer from 2004 to 2009. Mr. Forrester served as Senior Vice President, Finance and Corporate Development at Coley Pharmaceuticals Group, Inc. from 2000 to 2003. He earned his LL.B. from Bristol University in England.

Jonathan Pachter, Ph.D. has served as our Vice President, Head of Research since July 2011. Prior to joining us, Dr. Pachter served as the Senior Director of Cancer Biology at OSI Pharmaceuticals, Inc., which was acquired by Astellas Pharma Inc. in 2010, from 2005 to 2011. He earned his Ph.D. in Neuroscience and his M.S. in Pharmacology from Baylor College of Medicine.

Management

Richard Aldrich has served as a member of our board of directors since August 2010. Mr. Aldrich has served as a partner of Longwood Fund, LP, a venture capital investment fund, since 2010. He founded RA Capital Management LLC, a hedge fund, in 2004 and served as a Managing Member from 2004 to 2008 and as a Co-Founding Member from 2008 until 2011. He co-founded Sirtris Pharmaceuticals, Inc., which was acquired by GlaxoSmithKline plc in 2008, and served on its board of directors from 2004 to 2008; co-founded Concert Pharmaceuticals, Inc. and has served as chairman of its board of directors since 2006; and co-founded Alnara Pharmaceuticals, Inc. and served on its board of directors from 2008 to 2010. Mr. Aldrich also joined Vertex Pharmaceuticals, Inc. at its founding in 1989 and served as its Senior Vice President and Chief Business Officer until 2001. He earned his M.B.A from the Amos Tuck School at Dartmouth College and his B.S. from Boston College. We believe that Mr. Aldrich is qualified to serve on our board of directors due to his experience in the life sciences industry as an entrepreneur and venture capitalist and his service on the boards of directors of other life sciences companies.

John K. Clarke has served as a member of our board of directors since November 2010. Mr. Clarke co-founded Cardinal Partners, a venture capital firm, and has served as its Managing General Partner since 1997. Mr. Clarke co-founded Alnylam Pharmaceuticals, Inc. and has served on its board of directors since 2002. He also serves on the board of directors of Momenta Pharmaceuticals, Inc. Mr. Clarke also co-founded and has served as chief executive officer for a number of other companies, including Alkermes, Inc., Arris Pharmaceuticals, Inc., Cubist Pharmaceuticals, Inc. and the DNX Corporation. He earned his M.B.A. from the Wharton School of the University of Pennsylvania and his B.A. in Biology and Economics from Harvard College. We believe that Mr. Clarke is qualified to serve on our board of directors due to his financial expertise, years of experience providing advisory services to organizations in the life sciences industry and his service on the boards of directors of other life sciences companies.

Ansbert Gadicke, M.D. has served as a member of our board of directors since November 2010. Dr. Gadicke co-founded MPM Group, a venture capital firm, and has served as the managing director of MPM Asset Management LLC since 1996. He serves on the board of directors of Radius Health, Inc. and a number of privately-held life sciences companies. Dr. Gadicke previously served as a member of the board of directors of Pharmasset, Inc. from 1999 until 2007 and as a member of the board of directors of PharmAthene, Inc. from 2004 until 2007. Dr. Gadicke also serves on the Board of Fellows of Harvard Medical School. He earned his M.D. from J.W. Goethe University in Frankfurt. We believe that Dr. Gadicke is qualified to serve on our board of directors due to his experience in the life sciences industry as a venture capitalist, his training as a physician and his service on the boards of directors of other life sciences companies.

Stephen Kraus has served as a member of our board of directors since November 2010. Mr. Kraus has served as an investment professional at Bessemer Venture Partners, a venture capital firm, since 2004 and has been employed as a Partner since 2010. He serves on the board of directors of a number of privately-held life sciences companies. He previously served as a member of the board of directors of Sirtris Pharmaceuticals, Inc. from 2005 until 2007 and as a member of the board of directors of Restore Medical, Inc. from 2005 until 2008. He earned his M.B.A. from Harvard Business School and his B.A. from Yale University. We believe that Mr. Kraus is qualified to serve on our board of directors due to his experience in the life sciences industry as a venture capitalist and his service on the boards of directors of other life sciences companies.

Henri Termeer has served as a member of our board of directors since June 2011. Mr. Termeer served as President and a member of the board of directors of Genzyme Corporation from 1983 until its acquisition by sanofi-aventis U.S., LLC in 2011, its Chief Executive Officer from 1985 to 2011 and the chairman of its board of directors from 1988 to 2011. He serves on the Council of Economic

Advisors to Massachusetts Governor Deval Patrick and as co-chair of the Leadership Counsel of the Massachusetts Life Sciences Collaborative. Mr. Termeer is also chairman emeritus of the New England Healthcare Institute and a trustee for the Boston Museum of Science. Mr. Termeer serves on the board of directors of ABIOMED Inc., AVEO Pharmaceuticals, Inc., Massachusetts General Hospital, the Massachusetts Institute of Technology Corporation and Partners HealthCare, and, until December 31, 2011, served as chairman of the board of directors of the Federal Reserve Bank of Boston. Mr. Termeer also serves on the Board of Fellows of Harvard Medical School. He earned his M.B.A. from the Darden School at the University of Virginia. We believe Mr. Termeer is qualified to serve on our board of directors due to his senior executive experience in developing and managing Genzyme Corporation over the course of many years, his service on the boards of directors of Genzyme Corporation and other life sciences companies and his deep life sciences industry experience and knowledge.

BOARD COMPOSITION AND ELECTION OF DIRECTORS

Our board of directors is currently authorized to have seven members. Upon the closing of this offering, our board of directors will consist of six directors. In accordance with the terms of our certificate of incorporation and bylaws that will become effective upon 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 Mr. Aldrich and Mr. Kraus, and their term will expire at the annual meeting of stockholders to be held in 2013;

–> the class II directors will be Mr. Clarke and Dr. Gadicke, and their term will expire at the annual meeting of stockholders to be held in 2014; and

–> the class III directors will be Mr. Termeer and Dr. Westphal, and their term will expire at the annual meeting of stockholders to be held in 2015.

Upon the expiration of the term of a class of directors, directors in that class will be eligible to be elected for a new three-year term at the annual meeting of stockholders in the year in which their term expires. Our directors may be removed only for cause by the affirmative vote of the holders of 75% or more of our voting stock.

Our board of directors has determined that all of our directors, other than Dr. Westphal, are independent directors, as defined by applicable NASDAQ Marketplace 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 of directors has established an audit committee, a nominating and corporate governance committee and a compensation committee, each of which will operate, upon the closing of this offering, under a charter that has been approved by our board. The composition of each committee will be effective upon the closing of this offering.

Our board of directors has determined that all of the members of the audit committee, the compensation committee and the nominating and corporate governance committee, other than Dr. Westphal, are independent as defined under NASDAQ Marketplace Rules, including, in the case of all the members of our audit committee, the independence requirements contemplated by Rule 10A-3 under the Securities Exchange Act of 1934.

Audit committee

The members of our audit committee are Mr. Clarke, Mr. Kraus and Mr. Termeer. Mr. Clarke chairs the audit committee. Upon the closing of this offering, our 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;

–> overseeing our risk assessment and risk management policies;

–> meeting independently with our internal auditing staff, registered public accounting firm and management;

–> reviewing and approving or ratifying any related person transactions; and

–> preparing the audit committee report required by Securities and Exchange Commission, or SEC, rules.

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. Clarke is an "audit committee financial expert" as defined in applicable SEC rules.

Nominating and corporate governance committee

The members of our nominating and corporate governance committee are Mr. Aldrich, Dr. Gadicke, and Dr. Westphal. Mr. Aldrich chairs the nominating and corporate governance committee.

Under NASDAQ Marketplace Rule 5615(b)(1), we are permitted to phase in our compliance with the independent nominating and corporate governance committee requirements set forth in NASDAQ Marketplace Rule 5605(e) as follows: (1) one independent member at the time of listing, (2) a majority of independent members within 90 days of listing and (3) all independent members within one year of listing. Our board of directors has determined that each of Mr. Aldrich and Dr. Gadicke is an independent director under NASDAQ Marketplace Rules. Within one year of our listing on The NASDAQ Global Market, we expect that Dr. Westphal will resign from our nominating and corporate governance committee and be replaced with a new director, who is independent under NASDAQ Marketplace Rules.

Upon the closing of this offering, our nominating and corporate governance committee's responsibilities will include:

–> identifying individuals qualified to become members of our board;

–> recommending to our board the persons to be nominated for election as directors and to each of our board's committees;

–> reviewing and making recommendations to our board with respect to our board leadership structure;

–> reviewing and making recommendations to our board with respect to management succession planning;

–> developing and recommending to our board corporate governance principles; and

–> overseeing an annual self-evaluation by our board.

Compensation committee

The members of our compensation committee are Mr. Termeer, Mr. Aldrich and Mr. Kraus. Mr. Termeer chairs the compensation committee. Upon the closing of this offering, our compensation committee's responsibilities will include:

–> annually reviewing and approving corporate goals and objectives relevant to the compensation of our chief executive officer;

–> reviewing and approving, or making recommendations to our board with respect to, the compensation of our chief executive officer and our other 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" disclosure required by SEC rules; and

–> preparing the compensation committee report required by SEC rules.

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. From December 2010 until December 2011, the members of our compensation committee were John K. Clarke, Stephen Kraus and Christoph Westphal, M.D., Ph.D. Neither Mr. Clarke nor Mr. Kraus is or has been an officer or employee of our company. Dr. Westphal has served as our President and Chief Executive Officer since September 2011. For a description of transactions between us and members of our compensation committee and affiliates of such members, please see "Transactions with related persons."

OUR PRESIDENT AND CHIEF EXECUTIVE OFFICER

In addition to his role as Chairman of the board of directors and President and Chief Executive Officer of our company, Dr. Westphal also serves as a general partner of Longwood Fund, LP, a venture capital investment fund and one of our principal stockholders. Dr. Westphal currently devotes a majority of his business time to our company with responsibility for all aspects of our business and operations. We and Dr. Westphal anticipate that he will transition to an executive Chairman role at our company in the future based on our having meaningfully advanced our discovery, research and development efforts, the overall growth of our company and our identifying and hiring a suitable successor. As executive Chairman, we expect that Dr. Westphal will continue to devote significant time to our company. In such role, we and Dr. Westphal expect that he will particularly focus on our company's strategic initiatives and key business, financial and scientific decisions. Dr. Westphal owns 628,571 shares of our common stock as a founder of our company, including shares currently held in a family trust. As of December 31, 2011, 324,107 of these shares remain subject to vesting on a quarterly basis through August 2014. In addition, Longwood Fund has invested approximately $12.0 million in our company through December 31, 2011 and, upon completion of this offering, will own 2,269,841 shares of our common stock, excluding any of our common stock it may purchase in this offering. Dr. Westphal does not receive any cash compensation from us for his services as our President and Chief Executive Officer.

Executive compensation

COMPENSATION DISCUSSION AND ANALYSIS

Overview

This section discusses the principles underlying our policies and decisions with respect to the compensation of our executive officers and what we believe are the most important factors relevant to an analysis of these policies and decisions. This section also describes the material elements of compensation awarded to, earned by or paid to each of our named executive officers for 2011. Our "named executive officers" for 2011 consist of our three current executive officers, Christoph Westphal, M.D., Ph.D., our President and Chief Executive Officer, Robert Forrester, our Chief Operating Officer who also serves as our principal financial officer, and Jonathan Pachter, Ph.D., our Vice President, Head of Research; and three individuals who previously served as executives officers with us, Paul Brannelly, our current Vice President of Finance who served as our principal financial officer prior to the arrival of Mr. Forrester, Satish Jindal, Ph.D., our former President and Chief Operating Officer who remains with us as a non-executive employee, and Peter Elliott, Ph.D., our former Head of Research and Development. In addition, this section provides qualitative information regarding the manner and context in which compensation is awarded to and earned by our executive officers and is intended to provide context for the data presented in the tables and narrative that follow.

We commenced operations in November 2010 and hired each of our current executive officers in 2011. Dr. Westphal, our President and Chief Executive Officer, does not currently receive, and has not historically received, any compensation from us for his service as President and Chief Executive Officer because of his service as a general partner of Longwood Fund, LP, a venture capital investment fund and one of our principal stockholders. The compensation of each of our other current executive officers is based on individual terms approved by our board of directors at the time of hire. Our board of directors is in the process of developing and implementing the executive compensation program that will be in place following this offering. This section highlights key aspects of this program that we expect to implement in 2012. Following this offering, our compensation committee will oversee these compensation policies and, together with our board of directors, will periodically evaluate the need for revisions to ensure our compensation program is competitive with the companies with which we compete for executive talent.

Objectives and philosophy of our executive compensation program

The primary objectives of the board of directors in designing our executive compensation program are to:

–> attract, retain and motivate experienced and talented executives;

–> ensure executive compensation is aligned with our corporate strategies, research and development programs and business goals;

–> recognize the individual contributions of executives while fostering a shared commitment among executives by aligning their individual goals with our corporate goals;

–> promote the achievement of key strategic, development and operational performance measures by linking compensation to the achievement of measurable corporate and individual performance goals; and

–> align the interests of our executives with our stockholders by rewarding performance that leads to the creation of stockholder value.

Executive compensation

Each of our named executive officers was hired by us before our board of directors established a formal executive compensation program. To achieve these objectives in the future, we expect that our board of directors and compensation committee will evaluate our executive compensation program for 2012 with the goal of setting and maintaining compensation at levels that are justifiable based on each executive's level of experience, performance and responsibility and that the board believes are competitive with those of other companies in our industry and our region that compete with us for executive talent. In addition, beginning in 2012, we expect that our executive compensation program will tie a substantial portion of each executive's overall compensation to key strategic, financial and operational goals. We have provided, and expect to continue to provide, a portion of our executive compensation in the form of stock options, restricted stock and restricted stock units that vest over time, which we believe helps to retain our executives and aligns their interests with those of our stockholders by allowing them to participate in the longer term success of our company as reflected in stock price appreciation.

Use of compensation consultants and market benchmarking

For purposes of determining total compensation and the primary components of compensation for our executive officers in 2011, we did not retain the services of a compensation consultant or use survey information or compensation data to engage in benchmarking. Beginning with 2012 compensation, we expect that our compensation committee will consider publicly available compensation data for national and regional companies in the biotechnology industry to help guide its executive compensation decisions at the time of hiring and for subsequent adjustments in compensation. In connection with designing our compensation program for future periods, our board of directors recently retained the services of Pearl Meyer & Partners, or Pearl Meyer, an independent compensation consultant, to provide additional comparative data on executive compensation practices in our industry and to advise on our executive compensation program generally. Although we expect that our board of directors and compensation committee will consider Pearl Meyer's advice and recommendations about our executive compensation program, the board of directors and compensation committee will ultimately make their own decisions about these matters.

We anticipate that Pearl Meyer will provide our board of directors and compensation committee with comparative data showing where our total compensation and each element of our compensation rate among both public and private companies in the biotechnology and life sciences industry generally and a peer group of publicly-traded companies in the life science industry at a stage of development, market capitalization and size comparable to ours with which the board of directors and compensation committee believe we compete for executive talent. We currently expect that the companies to be included in this peer group will be:

Aegerion Pharmaceuticals, Inc.
Alnylam Pharmaceuticals, Inc.
Amicus Therapeutics, Inc.
Anacor Pharmaceuticals, Inc.
Anthera Pharmaceuticals, Inc.
ARIAD Pharmaceuticals, Inc.
Aveo Pharmaceuticals, Inc.
Curis Inc.
Cytokinetics, Inc.
Endocyte, Inc.
Infinity Pharmaceuticals, Inc.
Ironwood Pharmaceuticals, Inc.
Myrexis, Inc.
Osiris Therapeutics, Inc.
Synta Pharmaceuticals Corp.
Zalicus Inc.

This peer group is subject to change, and we anticipate that our board of directors and compensation committee will periodically review and update the list. The peer group will be used for purposes of gathering data to help develop our executive compensation practices and guide our compensation decisions. We also expect that Pearl Meyer will make suggestions about our executive compensation

practices based on the data it provides to us as well as compensation trends in our industry. We expect that the board of directors and compensation committee will consider peer group and other industry compensation data and the recommendations of Pearl Meyer when making decisions related to executive compensation, with the goal of ensuring that our compensation levels are reasonably competitive relative to the compensation paid by companies in our peer group. Based in part on initial consultation with Pearl Meyer and review of Pearl Meyer's analysis and recommendations, we generally expect that our board of directors and compensation committee will, in making future compensation decisions, target the total compensation paid to our executive officers between the 50th and 75th percentile of companies in our peer group.

Annual compensation review process

We expect to conduct annual compensation reviews beginning in 2012. As part of the reviews we conduct in 2012, we expect to address bonus awards for 2011, our first full year of operations, and for all aspects of compensation for 2012. During the first quarter of 2012 and each subsequent year, we expect to evaluate each executive officer's performance during the prior year. We expect that our chief executive officer will evaluate each executive other than himself from his own perspective and based on input from others within our company. This process will lead to a recommendation by the chief executive officer to the compensation committee with respect to each executive officer, other than himself, as to:

–> the level of contributions made to the general management and guidance of the company;

–> the need for salary increases;

–> the amount of bonuses to be paid, including the achievement of stated corporate and individual performance goals with respect to the annual review for performance in 2012 and future years; and

–> whether or not equity incentive awards should be made.

These recommendations will be reviewed by our compensation committee and taken into account when it makes a final determination on all such matters.

Components of our executive compensation program

The primary elements of our executive compensation program are:

–> base salary;

–> annual performance-based cash bonuses;

–> stock-based awards;

–> broad-based health and welfare benefits; and

–> severance and change in control benefits.

We do not, and do not expect in the future to, have a formal or informal policy for allocating between long-term and short-term compensation, between cash and non-cash compensation or among the different forms of non-cash compensation. Instead, our board of directors, after reviewing data it considers relevant, has determined subjectively what it believes to be the appropriate level and mix of the various compensation components. Beginning with 2012, we expect that our compensation committee also will consider information provided to it by Pearl Meyer in making this determination. Ultimately, the objective in allocating between long-term and currently paid compensation is to ensure adequate base compensation to attract and retain personnel, while providing incentives to maximize long-term value for our company and our stockholders. Therefore, we provide cash compensation in

the form of base salary to meet competitive salary norms and in the form of bonus compensation to incentivize and reward superior performance on an annual basis. To further focus our executives on longer-term performance and the creation of stockholder value, we rely upon equity-based awards that vest over a meaningful period of time. In addition, we provide our executives with benefits that are generally available to all our employees, including health and dental insurance, life and disability insurance and a 401(k) plan. Finally, we offer our executives severance benefits to incentivize them to continue to achieve stockholder value in connection with change in control or other situations in which they could be terminated without cause.

We have employment agreements with two of our named executive officers, Mr. Forrester and Dr. Pachter. These employment agreements provide for specific base salaries, target annual bonuses and severance and change in control arrangements for these executive officers. Dr. Pachter also received a signing bonus and reimbursement of certain relocation expenses in connection with the commencement of his employment. Details of these employment agreements are provided below under the heading "—Employment agreements."

Base salary

We use base salaries to recognize the experience, skills, knowledge and responsibilities of our employees, including our executive officers. Base salaries for our named executive officers were established through arm's-length negotiation at the time the executive was hired, taking into account the position for which the executive was considered and the executive's qualifications, prior experience and prior salary. None of our named executive officers is currently party to an employment agreement that provides for automatic or scheduled increases in base salary. However, we expect that our compensation committee will annually review and evaluate, with input from our chief executive officer, the need for adjustment of the base salaries of our executives based on changes and expected changes in the scope of an executive's responsibilities, including promotions, the individual contributions made by and performance of the executive during the prior year, the executive's performance over a period of years, overall labor market conditions, the relative ease or difficulty of replacing the executive with a well-qualified person, our overall growth and development as a company, general salary trends in our industry and among our peer group and where the executive's salary falls in the salary range presented by that data. In making decisions regarding salary increases, we may also draw upon the experience of members of our board of directors with other companies. We do not expect that our executive officers will receive any formulaic base salary increase, but we do expect that our compensation committee will, in making future compensation decisions, target the total cash compensation of our named executive officers, consisting of their base salaries and target annual cash bonuses, generally between the 50th and 75th percentile of companies in our peer group.

Dr. Westphal does not currently receive, and has not historically received, a base salary from us. Effective upon the closing of this offering, Dr. Westphal will receive annual compensation in connection with his service on our board of directors, as further described under the heading "—Director compensation."

Mr. Forrester's 2011 annual base salary is $310,000 pursuant to the terms of the employment agreement that we entered into with him upon the commencement of his employment in March 2011. Dr. Pachter's 2011 annual base salary is $280,000 pursuant to the terms of the employment agreement that we entered into with him upon the commencement of his employment in July 2011. Our board of directors approved the base salaries of Mr. Forrester and Dr. Pachter based on the recommendations of Dr. Westphal. In making his recommendations, Dr. Westphal considered the factors discussed above, including the qualifications, prior experience and prior salary of each of Mr. Forrester and Dr. Pachter.

We are amending and restating our employment agreements with Mr. Forrester and Dr. Pachter effective upon the closing of this offering.

Mr. Brannelly's 2011 base salary was $125,000 for the first eight months of 2011 when he was serving as our part-time employee and was increased to $250,000 in September 2011 when he began serving as our full-time employee. Dr. Jindal was paid $300,000 in total salary for 2011 as our former President and Chief Operating Officer and in his current capacity as our non-executive employee pursuant to the terms of a transition services agreement we entered into with him in February 2011, which provides a current 2011 annual base salary of $300,000 through mid-April 2012. Prior to his departure in August 2011, Dr. Elliott was paid $108,000 in total salary for 2011. As with our current executive officers, the base salary for each of these individuals was determined at the time of hire based on the factors set forth above.

For 2012, our board of directors determined to increase the base salaries for our current executive officers from 2011 levels based on our board's view, and the recommendation of Pearl Meyer, with respect to typical annual salary increases for executives in our industry. Mr. Forrester's 2012 annual base salary is $318,000. Dr. Pachter's 2012 annual base salary is $284,000. In addition, the amended and restated employment agreements to be effective upon the closing of this offering will provide for further increases in the base salaries for our current executive officers to recognize their increased responsibilities with respect to serving as executives of a publicly-traded company. Following the closing of this offering, Mr. Forrester's annual base salary will be $370,000 and Dr. Pachter's annual base salary will be $300,000. We believe that the base salaries established for our named executive officers for 2012 and upon the closing of this offering are aligned with our executive compensation objectives stated above and are competitive with those of similarly-situated companies.

Annual performance-based cash bonus

Because we only commenced operations in November 2010, none of our named executive offices received an annual cash bonus for 2010. Our board of directors subjectively determined the amount of annual cash bonuses for our current executive officers for 2011 in December 2011. We did not establish specific corporate or individual performance goals for our executive officers for 2011.

Dr. Westphal will not receive an annual cash bonus for 2011. In accordance with the terms of their employment agreements with us, Mr. Forrester and Dr. Pachter were eligible to receive an annual bonus for 2011 based on a percentage of their base salary. Mr. Forrester has an annual bonus target of 35% of his base salary, and Dr. Pachter has an annual bonus target of 30% of his base salary. Our board of directors awarded Mr. Forrester a 2011 bonus of $130,000 and Dr. Pachter a 2011 bonus of $38,500. Our board of directors also awarded Mr. Brannelly a 2011 discretionary cash bonus of $55,000. Our board's determination of these bonus awards was based primarily on its consideration of key company achievements during 2011, including the following:

- operational achievements related to hiring our team of employees, consultants and contract research organizations and our scientific advisory board, establishing a facility consisting of office and laboratory space, raising capital through preferred stock financings and filing a registration statement for our initial public offering;
- product discovery achievements related to screening compounds, selecting early development candidates, establishing the putative mechanism of action of VS-507, progressing our understanding of CSC biology and focusing on key CSC-related pathways;
- product development achievements related to preclinical development of our lead product candidates;

- biomarker and diagnostic achievements related to selecting potential genetic and protein biomarkers for validation studies; and

- business development achievements related to transactions with the Whitehead Institute for Biomedical Research, the Broad Institute, the Massachusetts Institute of Technology, the President and Fellows of Harvard College and Poniard Pharmaceuticals, Inc.

Neither Dr. Jindal nor Dr. Elliott received an annual bonus for 2011.

We are in the process of designing an annual cash bonus program to reward our named executive officers in the future. Beginning with 2012, we expect that our annual cash bonus program will be based upon the achievement of specified annual corporate and individual goals that will be established in advance by our compensation committee. We expect that our annual cash bonus program will emphasize pay-for-performance and will be intended to closely align executive compensation with achievement of specified operating results as the amount will be calculated on the basis of percentage of corporate goals achieved. The performance goals established by our compensation committee beginning with the 2012 fiscal year will be based on the business strategy of the company and the objective of building stockholder value. We expect that there will be three steps to determine if and the extent to which an annual cash bonus is payable to a named executive officer. First, at the beginning of the year, our compensation committee will determine the target annual cash incentive award for the named executive officer based on a percentage of the officer's annual base salary for that year. Second, the compensation committee will establish the specific performance goals, including both corporate and individual objectives, that must be met for the officer to receive the award. Third, shortly after the end of the year, the compensation committee will determine the extent to which these performance goals were met and the amount of the award. We expect that, beginning in 2012, our compensation committee will work with our chief executive officer to develop corporate and individual goals that they believe can be reasonably achieved with hard work over the course of the year and will target total cash compensation, consisting of base salaries and target annual cash bonuses, generally between the 50th and 75th percentile of companies in our peer group. The amended and restated employment agreements to be effective upon the closing of this offering will provide for increases in the target bonus percentage for our current executive officers to recognize their increased responsibilities with respect to serving as executives of a publicly-traded company. Following the closing of this offering, Mr. Forrester's agreement will provide for an annual bonus target of 40% of his base salary and Dr. Pachter's agreement will provide for an annual bonus target of 35% of his base salary.

Stock-based awards

Our equity award program is the primary vehicle for offering long-term incentives to our executives. While we do not have any equity ownership guidelines for our executives, 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, the vesting feature of our equity awards contributes to executive retention by providing an incentive for our executives to remain in our employ during the vesting period. Prior to this offering, our executives were eligible to participate in our 2010 equity incentive plan, and all equity awards granted in 2011 were pursuant to the 2010 equity incentive plan. Following the closing of this offering, our employees and executives will be eligible to receive stock-based awards pursuant to our 2012 incentive plan. Under our 2012 incentive plan, executives will be eligible to receive grants of stock options, restricted stock awards, restricted stock unit awards, stock appreciation rights and other stock-based equity awards at the discretion of our board of directors.

Our equity awards have typically been in the form of stock options. Because our executives profit from stock options only if our stock price increases relative to the stock option's exercise price, we believe stock options provide meaningful incentives for our executives to achieve increases in the value of our stock over time. While we currently expect to continue to use stock options as the primary form of equity awards that we grant, we have used and may in the future continue to use alternative forms of equity awards, such as restricted stock and restricted stock units.

Executive compensation

To date, we have generally used equity awards to compensate our executive officers in the form of initial grants in connection with the commencement of employment. However, we have also approved restricted stock units, granted effective upon the closing of this offering, to our executive officers other than Dr. Westphal as further described under the heading "—Grants of plan-based awards in 2011." In the future, we also generally plan to grant equity awards on an annual basis to our executive officers. We expect that, beginning in 2012, our compensation committee generally will target the equity awards of our executive officers at the 75th percentile of companies in our peer group. We may also make additional discretionary grants, typically in connection with the promotion of an employee, to reward an employee, for retention purposes or in other circumstances recommended by management.

In general, the equity awards that we have granted to our executives vest with respect to 25% of the shares on the first anniversary of the grant date and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date. Vesting ceases upon termination of employment and exercise rights cease shortly after termination of employment. Prior to the exercise of a stock option, the holder has no rights as a stockholder with respect to the shares subject to such option, including voting rights or the right to receive dividends or dividend equivalents.

We have granted stock options with exercise prices that are set at no less than the fair value of shares of our common stock on the date of grant as determined by our board of directors. The exercise price of all stock options granted after the closing of this offering will be equal to the fair value of shares of our common stock on the date of grant, which generally will be determined by reference to the closing market price of our common stock on the date of grant.

We have not granted any equity awards to Dr. Westphal in connection with his service as our President and Chief Executive Officer. As one of our co-founders, we issued and sold to Dr. Westphal 628,571 shares of our common stock in August 2010 in connection with our formation. These shares are subject to repurchase by us pursuant to the terms of a restricted stock agreement, as further described under the heading "Transactions with related persons—Restricted stock grants to co-founders." In addition, effective upon the closing of this offering, Dr. Westphal will receive annual stock option awards in connection with his service on our board of directors, as further described under the heading "—Director compensation."

In April 2011, in recognition of the commencement of Mr. Forrester's employment with us, we issued and sold to Mr. Forrester 128,000 shares of our common stock pursuant to his employment agreement. These shares are subject to repurchase by us pursuant to the terms of a restricted stock agreement. These shares vest with respect to 25% of the shares on the first anniversary of his date of hire and with respect to the remaining shares in approximately equal monthly installments through the fourth anniversary of his date of hire. The purchase price of the restricted stock was $0.28 per share, the fair value of our common stock on the date of grant as determined by our board of directors. We have approved a grant of restricted stock units to Mr. Forrester, effective upon the closing of this offering, as described under the heading "—Grants of plan-based awards in 2011."

In September 2011, in recognition of the commencement of Dr. Pachter's employment with us, we granted Dr. Pachter an option to purchase 68,571 shares of our common stock pursuant to his employment agreement. This option vests with respect to 25% of the shares on the first anniversary of his date of hire and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire. The exercise price of this option is $1.93 per share, the fair value of our common stock on the date of grant as determined by our board of directors. We have approved a grant of restricted stock units to Dr. Pachter, effective upon the closing of this offering, as described under the heading "—Grants of plan-based awards in 2011."

We did not grant any equity awards to Mr. Brannelly in 2011. In December 2010, in recognition of the commencement of Mr. Brannelly's employment with us, we granted Mr. Brannelly an option to purchase 60,000 shares of our common stock. This option vests with respect to 25% of the shares on the first anniversary of his date of hire and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire. The exercise price of this option is $0.28 per share, the fair value of our common stock on the date of grant as determined by our board of directors. We have approved a grant of restricted stock units to Mr. Brannelly, effective upon the closing of this offering, as described under the heading "—Grants of plan-based awards in 2011."

We did not grant any equity awards to Dr. Jindal in 2011. As one of our co-founders, we issued and sold to Dr. Jindal 357,142 shares of our common stock in August 2010 in connection with our formation. Pursuant to a restricted stock agreement with Dr. Jindal, as amended, we repurchased 166,480 shares from him, as further described under the heading "Transactions with related persons—Restricted stock grants to co-founders."

In April 2011, in recognition of the commencement of Dr. Elliott's employment with us, we issued and sold to Dr. Elliott 128,000 shares of our common stock pursuant to his employment agreement at a price of $0.28 per share, the fair value of our common stock on the date of grant as determined by our board of directors. Pursuant to a restricted stock agreement with Dr. Elliott, we repurchased 120,000 shares in connection with Dr. Elliott's transition from our employee to a member of our scientific advisory board.

Benefits and other compensation

We believe that establishing competitive benefit packages for our employees is an important factor in attracting and retaining highly qualified personnel. We maintain broad-based benefits that are provided to all employees, including health and dental insurance, life and disability insurance and a 401(k) plan. All of our executives are eligible to participate in all of our employee benefit plans, in each case on the same basis as other employees. Under our 401(k) plan, we match 100% of employee contributions up to an amount equal to 3% of the employee's salary and then match 50% of employee contributions up to an amount equal to an additional 2% of the employee's salary. The match vests immediately. Consistent with our compensation philosophy, we intend to continue to maintain our current benefits for our named executive officers.

In certain circumstances, we may award cash signing bonuses or may reimburse relocation expenses when executives first join us. Whether a signing bonus is paid or relocation expenses are reimbursed, and the amount of either such benefit, is determined by our board of directors on a case-by-case basis based on the specific hiring circumstances and the recommendation of our chief executive officer.

Dr. Pachter, who joined us in June 2011, received a signing bonus of $50,000 payable upon commencement of employment. We also reimbursed Dr. Pachter for $12,926 of relocation expenses in connection with his move to our area to commence employment with us.

Severance and change in control benefits

Pursuant to employment agreements we have entered into with certain of our executives, these executives are entitled to specified benefits in the event of the termination of their employment under specified circumstances, including termination following a change in control of our company. Please refer to "—Employment agreements" for a more detailed discussion of these benefits. We have provided estimates of the value of the severance payments made and other benefits provided to

executives under various termination circumstances, under the heading "—Potential payments upon termination or change in control" below.

We believe providing these benefits helps us compete for executive talent. After reviewing the practices of companies represented in the compensation peer group, we believe that our severance and change in control benefits are generally in line with severance packages offered to executives of the companies in our peer group. Based on the substantial business experience of the members of our board of directors and consultation with Pearl Meyer, we believe that our severance and change in control benefits are generally in line with severance packages offered to executives by companies at comparable stages of development in our industry and related industries.

We have structured our change in control benefits as "double trigger" benefits. In other words, the change in control does not itself trigger benefits. Rather, benefits are paid only if the employment of the executive is terminated during a specified period in connection with the change in control. We believe a "double trigger" benefit maximizes stockholder value because it prevents an unintended windfall to executives in the event of a friendly change in control, while still providing them appropriate incentives to cooperate in negotiating any change in control in which they believe they may lose their jobs.

Risk considerations in our compensation program

Our board of directors is evaluating the philosophy and standards on which our compensation plans will be implemented across our company. It is our belief that our compensation programs do not, and in the future will not, encourage inappropriate actions or risk taking by our executive officers. We do not believe that any risks arising from our employee compensation policies and practices are reasonably likely to have a material adverse effect on our company. In addition, we do not believe that the mix and design of the components of our executive compensation program will encourage management to assume excessive risks. We believe that our current business process and planning cycle fosters the behaviors and controls that would mitigate the potential for adverse risk caused by the action of our executives. We believe that the following aspects of our executive compensation program that we plan to implement will mitigate the potential for adverse risk caused by the action of our executives:

–> annual establishment of corporate and individual objectives for our performance-based cash bonus programs for our executive officers, which we expect to be consistent with our annual operating and strategic plans, designed to achieve the proper risk/reward balance and not require excessive risk taking to achieve;

–> the mix between fixed and variable, annual and long-term and cash and equity compensation, which we expect to be designed to encourage strategies and actions that balance the company's short-term and long-term best interests; and

–> equity incentive awards that vest over a period of time, which we believe will encourage executives to take a long-term view of our business.

Tax and accounting considerations

Section 162(m) of the Internal Revenue Code of 1986, as amended, which will become applicable to us upon the closing of this offering, generally disallows a tax deduction for compensation in excess of $1.0 million paid to our chief executive officer and our three other most highly paid officers (other than the chief executive officer and the chief financial officer). Qualifying performance-based compensation is not subject to the deduction limitation if specified requirements are met. We will

periodically review the potential consequences of Section 162(m) and we generally intend to structure the performance-based portion of our executive compensation, where feasible, to comply with exemptions in Section 162(m) so that the compensation will remain tax deductible to us. However, the board of directors may, in its judgment, authorize compensation payments that do not comply with the exemptions in Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent and are in the best interests of our stockholders.

We account for equity compensation paid to our employees in accordance with Financial Accounting Standards Board, or FASB, Accounting Standard Codification Topic 718, *Compensation-Stock Compensation*, or ASC 718, which requires us to measure and recognize compensation expense in our financial statements for all share-based payments based on an estimate of their fair value over the service period of the award. We record cash compensation as an expense at the time the obligation is accrued.

SUMMARY COMPENSATION TABLE

The following table sets forth the total compensation awarded to, earned by or paid to our named executive officers during 2011.

Name and principal position	Year	Salary ($)	Bonus ($)	Stock awards ($)(1)	Option awards ($)(2)	All other compensation ($)(3)	Total ($)
Christoph Westphal, M.D., Ph.D.(4) *President and Chief Executive Officer*	2011	—	—	—	—	—	—
Robert Forrester *Chief Operating Officer*	2011	252,775	130,000	35,840	—	7,052	425,667
Jonathan Pachter, Ph.D. *Vice President, Head of Research*	2011	129,236	88,500(5)	—	81,336	20,440	319,512
Paul Brannelly *Vice President of Finance, Former principal financial officer*	2011	164,427	55,000	—	—	4,539	223,966
Satish Jindal, Ph.D.(6) *Former President and Chief Operating Officer*	2011	300,019	—	—	—	4,521	304,540
Peter Elliott, Ph.D.(7) *Former Head of Research and Development*	2011	108,505	—	35,840	—	1,728	146,073

(1) *The amounts in the "Stock awards" column reflect the aggregate grant date fair value of restricted stock granted during the year computed in accordance with the provisions of ASC 718, excluding the impact of estimated repurchases by us related to service-based vesting conditions. The assumptions that we used to calculate these amounts are discussed in Note 6 to our financial statements appearing at the end of this prospectus.*

(2) *The amounts in the "Option awards" column reflect the aggregate grant date fair value of stock options granted during the year computed in accordance with the provisions of ASC 718, excluding the impact of estimated forfeitures related to service-based vesting conditions (which in our case were none). The assumptions that we used to calculate these amounts are discussed in Note 6 to our financial statements appearing at the end of this prospectus.*

(3) The amounts in the "All other compensation" column reflect the value of perquisites and other personal benefits, which are further detailed below.

Name	401(k) match ($)	Group life insurance premium ($)	Relocation expense reimbursement ($)	Total ($)
Christoph Westphal, M.D., Ph.D.	—	—	—	—
Robert Forrester	6,677	375	—	7,052
Jonathan Pachter, Ph.D.	7,169	345	12,926	20,440
Paul Brannelly	4,269	270	—	4,539
Satish Jindal, Ph.D.	3,231	1,290	—	4,521
Peter Elliott, Ph.D.	1,383	345	—	1,728

(4) Dr. Westphal did not receive any compensation from us for his service as our President and Chief Executive Officer in 2011.

(5) The bonus amount for Dr. Pachter includes a signing bonus of $50,000 paid upon the commencement of his employment with us.

(6) In February 2011, Dr. Jindal transitioned from his former role as our President and Chief Operating Officer to his current capacity as our non-executive employee pursuant to the terms of a transition services agreement.

(7) Dr. Elliott's employment with us ended in August 2011.

GRANTS OF PLAN-BASED AWARDS IN 2011

The following table sets forth information regarding grants of plan-based awards to our named executive officers during 2011.

Name	Grant date	All other stock awards: number of shares of stock (#)	All other option awards: number of securities underlying options (#)	Exercise price of option awards ($/share)[1]	Grant date fair value of stock and option awards ($)[2]
Christoph Westphal, M.D., Ph.D.	—	—	—	—	—
Robert Forrester	3/3/2011	128,000[3]	—	—	35,840
Jonathan Pachter, Ph.D.	9/6/2011	—	68,571[4]	1.93	81,336
Paul Brannelly	—	—	—	—	—
Satish Jindal, Ph.D.	—	—	—	—	—
Peter Elliott, Ph.D.	3/3/2011	128,000[5]	—	—	35,840

(1) Option awards have been granted with exercise prices equal to the fair value of our common stock on the date of grant. For a discussion of our methodology for determining the fair value of our common stock, see "Management's discussion and analysis of financial condition and results of operations—Critical accounting policies and significant estimates."

(2) The amounts in the "Grant date fair value of stock and option awards" column reflect the grant date fair value of stock and option awards granted in 2011 calculated in accordance with ASC 718.

(3) Mr. Forrester paid $0.28 per share for the stock award. Stock award vests with respect to 25% of the shares on the first anniversary of Mr. Forrester's date of hire, which was in March 2011, and with respect to the remaining shares in approximately equal monthly installments through the fourth anniversary of his date of hire.

(4) Option award vests with respect to 25% of the shares on the first anniversary of Dr. Pachter's date of hire, which was in July 2011, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire.

(5) Dr. Elliott paid $0.28 per share for the stock award. Pursuant to a restricted stock agreement with Dr. Elliott, we repurchased 120,000 shares in connection with Dr. Elliott's transition from our employee to a member of our scientific advisory board. The remaining shares of stock are fully vested.

We have approved awards of restricted stock units, to be granted effective upon the closing of this offering, to various employees, including our executive officers, as part of our effort to bring our equity compensation more into line with that of companies in our peer group. We approved these awards of restricted stock units to our named executive officers other than Dr. Westphal as follows:

Name	Number of restricted stock units
Robert Forrester	142,857
Jonathan Pachter, Ph.D.	85,714
Paul Brannelly	28,571

Each restricted stock unit represents the right to receive one share of our common stock if the vesting conditions are satisfied. The restricted stock units vest with respect to 25% of the shares on the first anniversary of the closing of this offering and with respect to the remaining shares in approximately equal semi-annual installments through the fourth anniversary of the closing of this offering.

OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2011

The following table sets forth information regarding outstanding equity awards held by our named executive officers as of December 31, 2011.

	Option awards				Stock awards	
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)	Option expiration date	Number of shares that have not vested (#)	Market value of shares that have not vested ($)
Christoph Westphal, M.D., Ph.D.	—	—	—	—	324,107(1)	3,241,070(2)
Robert Forrester	—	—	—	—	128,000(3)	1,280,000(2)
Jonathan Pachter, Ph.D.	—	68,571(4)	1.93	9/6/2021	—	—
Paul Brannelly	15,000	45,000(5)	0.28	12/3/2020	—	—
Satish Jindal, Ph.D.	—	—	—	—	17,671(6)	176,710(2)
Peter Elliott, Ph.D.	—	—	—	—	—	—

(1) *Stock award vested with respect to 25% of the shares on the grant date, which was in August 2010, and vests with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date.*

(2) *The market value of the stock award is based on an assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus.*

(3) *Stock award vests with respect to 25% of the shares on the first anniversary of Mr. Forrester's date of hire, which was in March 2011, and with respect to the remaining shares in approximately equal monthly installments through the fourth anniversary of his date of hire.*

(4) *Option award vests with respect to 25% of the shares on the first anniversary of Dr. Pachter's date of hire, which was in July 2011, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire.*

(5) *Option award vests with respect to 25% of the shares on the first anniversary of Mr. Brannelly's date of hire, which was in November 2010, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire.*

(6) *Stock award vests in installments specified in a restricted stock agreement with Dr. Jindal, as amended, and will be fully vested in February 2012.*

OPTIONS EXERCISED AND STOCK VESTED

None of our named executive officers exercised any options during 2011. The following table sets forth information regarding the vesting of stock during 2011 for each of our named executive officers.

	Stock awards	
Name	Number of shares acquired on vesting (#)	Value realized on vesting ($)[1]
Christoph Westphal, M.D., Ph.D.	117,857[2]	229,969
Robert Forrester	0	—
Jonathan Pachter, Ph.D.	—	—
Paul Brannelly	—	—
Satish Jindal, Ph.D.	66,964[3]	130,663
Peter Elliott, Ph.D.	8,000[4]	15,400

(1) *The value realized upon vesting is equal to the fair value of our common stock on the vesting date multiplied by number of shares acquired on vesting.*

(2) *Stock award vested with respect to 25% of the shares on the grant date, which was in August 2010, and vests with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date.*

(3) *Stock award vests in installments specified in a restricted stock agreement with Dr. Jindal, as amended, and will be fully vested in February 2012.*

(4) *Pursuant to a restricted stock agreement with Dr. Elliott, we repurchased 120,000 shares in connection with Dr. Elliott's transition from our employee to a member of our scientific advisory board. The remaining shares of stock are fully vested.*

EMPLOYMENT AGREEMENTS

In connection with the commencement of their employment with us, we entered into employment agreements with each of Mr. Forrester and Mr. Pachter. We are amending and restating these agreements effective upon the closing of this offering. Each of these employment agreements provides that employment will continue for an indefinite period until either we or the employee provides written notice of termination in accordance with the terms of the agreement. In addition, each of these executive officers is bound by the terms of an employee non-solicitation, non-competition, confidential information and inventions assignment agreement that, among other things, prevents the executive from competing with us during the term of his employment and for a specified time thereafter.

Pursuant to the terms of the amended and restated employment agreements, effective upon the closing of this offering, Mr. Forrester and Dr. Pachter will receive the following base salaries and will be eligible for the following bonus percentages.

Name	Annual Base Salary $	Bonus Percentage (%)
Robert Forrester	370,000	40
Jonathan Pachter, Ph.D	300,000	35

Upon execution and effectiveness of a release of claims, each of Mr. Forrester and Dr. Pachter will be entitled to severance payments if we terminate his employment without cause, as defined in the employment agreement, or Mr. Forrester or Dr. Pachter terminates employment with us for good reason, as defined in the employment agreement.

If Mr. Forrester's or Dr. Pachter's employment terminates under these circumstances, in each case absent a change in control, as defined in the employment agreement, we will be obligated for a period of 12 months, in the case of Mr. Forrester, and nine months, in the case of Dr. Pachter, (1) to pay such executive officer his base salary, (2) to provide that any equity awards granted prior to or in connection with the closing of this offering will continue vesting and (3) to the extent allowed by applicable law and the applicable plan documents, continue to provide to such executive officer all company employee benefit plans and arrangements that he was receiving at the time of termination.

If Mr. Forrester's or Dr. Pachter's employment terminates under these circumstances, in each case within 90 days prior to, or 18 months following, a change in control, we will be obligated (1) to pay such executive officer a lump sum amount equal to 12 months of his base salary, (2) accelerate in full the vesting of all outstanding equity awards and (3) to the extent allowed by applicable law and the applicable plan documents, continue to provide to such executive officer, for a period of 12 months, all company employee benefit plans and arrangements that he was receiving at the time of termination.

To the extent that any severance or compensation payment to Mr. Forrester pursuant to his employment agreement constitutes an "excess parachute payment" within the meaning of Sections 280G and 4999 of the Internal Revenue Code, then Mr. Forrester will be entitled to an additional gross-up payment equal to the sum of the amount of tax owed by him in connection with such "excess parachute payment" and any interest or penalties thereon.

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL

The following tables set forth information regarding potential payments that each named executive officer who was serving as an executive officer as of December 31, 2011 would have received if the executive officer's employment had terminated as of December 31, 2011 under the circumstances set forth below, assuming that the amended and restated employment agreements described above for each of the named executive officers were in effect as of December 31, 2011.

	Termination without cause or for good reason absent a change in control		
Name	**Cash payment $**	**Value of stock-based awards with accelerated vesting [(1)] $**	**Value of benefits $**
Robert Forrester	370,000	544,349	2,163,127(2)
Jonathan Pachter, Ph.D.	225,000	138,422	15,210

(1) *The value of stock options with accelerated vesting represents the value of unvested stock options as of December 31, 2011 based on the difference between the exercise price of the options and an assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus.*

(2) *Under the terms of the conditional 280G gross-up provisions in Mr. Forrester's amended and restated employment agreement described above, Mr. Forrester would receive an additional severance payment in the amount $2,163,127 to ensure appropriate treatment of any "excess parachute payments" to Mr. Forrester within the meaning of Sections 280G and 4999 of the Internal Revenue Code.*

Executive compensation

	Termination without cause or for good reason within 90 days prior to, or 18 months following, a change in control		
Name	Cash payment $	Value of stock-based awards with accelerated vesting[(1)] $	Value of benefits $
Robert Forrester	370,000	2,672,730	2,163,127(2)
Jonathan Pachter, Ph.D.	300,000	1,410,851	20,280

(1) *The value of stock options with accelerated vesting represents the value of unvested stock options as of December 31, 2011 based on the difference between the exercise price of the options and an assumed initial public offering price of $10.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus.*

(2) *Under the terms of the conditional 280G gross-up provisions in Mr. Forrester's amended and restated employment agreement described above, Mr. Forrester would receive an additional severance payment in the amount $2,163,127 to ensure appropriate treatment of any "excess parachute payments" to Mr. Forrester within the meaning of Sections 280G and 4999 of the Internal Revenue Code.*

PENSION BENEFITS

We do not maintain any defined benefit pension plans.

NONQUALIFIED DEFERRED COMPENSATION

We do not maintain any nonqualified deferred compensation plans.

STOCK OPTION AND OTHER EMPLOYEE BENEFIT PLANS

The two incentive plans described in this section are the 2010 equity incentive plan and the 2012 incentive plan. Prior to this offering, we granted awards to eligible participants under the 2010 equity incentive plan. Following the closing of this offering, we expect to grant awards to eligible participants under the 2012 incentive plan, which will become effective immediately prior to the closing of this offering.

2012 incentive plan

Our 2012 incentive plan was adopted by our board of directors in December 2011 and approved by our stockholders in January 2012. The 2012 incentive plan will become effective immediately prior to the closing of this offering. The 2012 incentive plan provides for the grant of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock awards, restricted stock units and other stock-based or cash awards. Upon effectiveness of the plan, the number of shares of our common stock that will be reserved for issuance under the 2012 incentive plan will be the sum of (1) 3,428,571 shares plus (2) the number of shares (up to 571,242 shares) equal to the sum of the number of shares of our common stock then available for issuance under the 2010 equity incentive plan described below and the number of shares of our common stock subject to outstanding awards under the 2010 equity incentive plan, described below, that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right plus (3) an annual increase, to be added on the first day of each year beginning in 2013 and each subsequent anniversary until the expiration of the 2012 incentive plan, equal to the lowest of 1,285,714 shares of our common stock, 4.0% of the number of shares of our common stock outstanding on the first day of the year and an amount determined by our board of directors.

Executive compensation

Our employees, officers, directors, consultants and advisors are eligible to receive awards under the 2012 incentive plan. However, incentive stock options may only be granted to our employees. The maximum number of shares of our common stock with respect to which awards may be granted to any participant under the 2012 incentive plan is 1,142,857 per calendar year. For purposes of this limit on the maximum number of shares that may be awarded to any participant, the combination of an option in tandem with a stock appreciation right will be treated as a single award. The maximum amount of cash awards which may be granted to any participant under the 2012 incentive plan is $5.0 million per calendar year.

Pursuant to the terms of the 2012 incentive plan, our board of directors administers the plan and, subject to any limitations in the plan, selects the recipients of awards and determines:

–> the number of shares of our common stock covered by options and the dates upon which the options become exercisable;

–> the type of options to be granted;

–> the duration of options, which may not be in excess of ten years;

–> 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; and

–> the number of shares of our common stock subject to and the terms of any stock appreciation rights, restricted stock awards, restricted stock units or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price.

Our board of directors has delegated authority to our Chief Executive Officer and our Chief Operating Officer to grant awards under our 2012 incentive plan. Each officer has the power to make awards to all of our employees, except himself, any other executive officer and any other person that our board of directors or compensation committee may from time to time designate in writing as not being eligible. Our Chief Executive Officer and our Chief Operating Officer are not authorized to grant options for more than 71,428 shares of our common stock to any person in any one year, for more than 142,857 shares of our common stock in the aggregate in one year, or for more than 571,428 shares of our common stock in the aggregate. The officers are required to maintain a list of the options granted pursuant to this authority and report to our compensation committee upon request. The exercise price of such options will be equal to the closing price of our common stock on the date of grant.

Upon a merger or other reorganization event, our board of directors may, in its sole discretion, take any one or more of the following actions pursuant to the 2012 incentive plan as to some or all outstanding awards other than restricted stock:

–> provide that all outstanding awards shall be assumed, or substantially equivalent awards shall be substituted, by the acquiring or successor corporation (or an affiliate thereof);

–> upon written notice to a participant, provide that all of the participant's unexercised awards will terminate immediately prior to the consummation of such reorganization event unless exercised by the participant;

–> 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;

–> in the event of a reorganization event pursuant to which holders of shares 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 (1) 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 (2) 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 award;

–> provide that, in connection with a liquidation or dissolution, awards shall convert into the right to receive liquidation proceeds.

Our board of directors does not need to take the same action with respect to all awards and may take different actions with respect to portions of the same award.

In the case of certain restricted stock units, no assumption or substitution is permitted, and the restricted stock units will instead be settled in accordance with the terms of the applicable restricted stock unit agreement.

Upon the occurrence of a reorganization event other than a liquidation or dissolution, the repurchase and other rights with respect to outstanding restricted stock awards will continue for the benefit of the successor company and will, unless the board of directors may otherwise determine, apply to the cash, securities or other property into which shares of our common stock are converted or exchanged pursuant to the reorganization event. 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.

At any time, our board of directors may, in its sole discretion, provide that any award under the 2012 incentive plan will become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part.

No award may be granted under the 2012 incentive plan on or after January 10, 2022. Our board of directors may amend, suspend or terminate the 2012 incentive plan at any time, except that stockholder approval may be required to comply with applicable law or stock market requirements.

Effective upon the closing of this offering, restricted stock units with respect to an aggregate of 600,000 shares of our common stock will be granted under our 2012 incentive plan.

2010 equity incentive plan

Our 2010 equity incentive plan was adopted by our board of directors and approved by our stockholders in November 2010. Upon the closing of this offering and the approval of the 2012 stock incentive plan, we do not expect to grant any additional awards under the 2010 equity incentive plan.

The 2010 equity incentive plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock awards, restricted stock units and stock appreciation rights. The number of shares of our common stock that are reserved for issuance under the 2010 equity incentive plan is 571,242.

Our employees, directors, consultants and advisors are eligible to receive awards under the 2010 equity incentive plan. However, incentive stock options may only be granted to our employees.

Upon a merger or other reorganization event, our board of directors may, in its sole discretion, take any one or more of the following actions pursuant to the 2010 equity incentive plan as to some or all outstanding awards:

- arrange for all outstanding awards to be assumed, or equivalent awards shall be substituted, by the surviving or acquiring corporation (or the surviving or acquiring corporation's parent company);

- arrange for the assignment of any reacquisition or repurchase rights to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

- accelerate the vesting of any outstanding award to a date on or prior to the effective time of such merger or other reorganization event;

- arrange for the lapse of any of our reacquisition or repurchase rights;

- cancel or arrange for the cancellation of the award, to the extent not vested or not exercised prior to the effective time of such merger or other reorganization event; and/or

- make a payment, in such form as may be determined by our board of directors, equal to the excess, if any, of (A) the value of the property the holder of the award would have received upon the exercise of the award, over (B) any exercise price payable by such holder in connection with such exercise.

Our board of directors does not need to take the same action with respect to all awards and may take different actions with respect to portions of the same award.

At any time, our board of directors may, in its sole discretion, provide that any award under the 2010 equity incentive plan will 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 of December 31, 2011, there were options to purchase an aggregate of 405,141 shares of common stock outstanding under the 2010 equity incentive plan at a weighted-average exercise price of $0.75 per share and no shares of common stock issued upon the exercise of options granted under the 2010 equity incentive plan. If the 2012 stock incentive plan is approved by our stockholders, we will grant no further stock options or other awards under the 2010 equity incentive plan. However, any shares of common stock reserved for issuance under the 2010 equity incentive plan that remain available for issuance and any shares of common stock subject to awards under the 2010 equity incentive plan that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at the original issuance price pursuant to a contractual repurchase right will be available for issuance under the 2012 stock incentive plan up to a specified number of shares.

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 is $17,000 for 2012. Participants who are at least 50 years old can also make "catch-up" contributions, which in 2012 may 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. Our 401(k) plan also permits us to make discretionary contributions and matching contributions, subject to established limits and a vesting schedule. Beginning in July 2011, we made an employer matching contribution equal to (1) 100% of

employee deferral contributions up to a deferral rate of 3% of compensation plus (2) 50% of employee deferral contributions up to an deferral rate of an additional 2% of compensation.

LIMITATION OF LIABILITY AND INDEMNIFICATION

Our certificate of incorporation, which will become effective upon the closing of this offering, limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty or other duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

–> for any breach of the director's duty of loyalty to us or our stockholders;

–> for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

–> for voting for or assenting to unlawful payments of dividends, stock repurchases or other distributions; or

–> for any transaction from which the director derived an improper personal benefit.

Any amendment to or repeal of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

In addition, our certificate of incorporation, which will become effective upon the closing of this offering, provides that we must indemnify our directors and officers and we must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers. In addition, we have entered into indemnification agreements with our directors. These indemnification agreements may require us, among other things, to indemnify each such director for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him in any action or proceeding arising out of his service as one of our directors.

Certain of our non-employee directors may, through their relationships with their employers, be insured and/or indemnified against certain liabilities incurred in their capacity as members of our board of directors.

RULE 10B5-1 SALES PLANS

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from the director or officer. The director or officer may amend or terminate the plan in some circumstances. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

DIRECTOR COMPENSATION

During 2011, we did not pay cash compensation to any director for his service as a director, except Henri Termeer. Mr. Termeer received an annual retainer fee of $25,000 for his service on our board of directors in 2011. We have historically reimbursed our non-employee directors for reasonable travel and other expenses incurred in connection with attending board of director and committee meetings.

As discussed in the "Executive compensation" section of this prospectus, our President and Chief Executive Officer, Christoph Westphal, M.D., Ph.D., who is also chairman of our board of directors, has not historically received any compensation in connection with his service as our President and Chief Executive Officer. Effective upon the closing of this offering, Dr. Westphal will be compensated for his service on our board of directors as described below.

During 2011, we did not grant equity awards as compensation to any of our directors, except Henri Termeer. In June 2011, in recognition of the commencement of his service on our board of directors, we granted Mr. Termeer an option to purchase 35,714 shares of our common stock. This option vests with respect to 25% of the shares on the first anniversary of the grant date and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date. The exercise price of this option is $0.28 per share, the fair value of our common stock on the date of grant as determined by our board of directors.

Effective upon the closing of this offering, our directors will be compensated for service on our board of directors as follows:

- an annual retainer for our non-employee directors for service on our board of directors of $30,000;
- for members of the audit committee, an annual fee of $7,500 ($15,000 for the chair);
- for non-employee members of the nominating and corporate governance committee, an annual fee of $3,750 ($7,500 for the chair);
- for members of the compensation committee, an annual fee of $5,000 ($10,000 for the chair);
- for any non-employee chairman of our board of directors, an additional annual fee of $40,000;
- for any lead director of our board of directors, an additional annual fee of $20,000;
- for any newly elected director, an initial stock option grant of 25,000 shares of our common stock; and
- an annual stock option grant for continuing service on our board of directors of 12,500 shares of our common stock.

Subject to the director's continued service a director, the initial and annual stock option grants will vest in approximately equal monthly installments through the first anniversary of the grant date.

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.

Transactions with related persons

Since our incorporation in August 2010, we have engaged in the following transactions with our directors, executive officers, holders of more than 5% of our voting securities, and affiliates or immediately family members of our directors, executive officers and holders of more than 5% of our voting securities, and our co-founders. We believe that all of these transactions were on terms as favorable as could have been obtained from unrelated third parties.

SERIES C PREFERRED STOCK FINANCING

In November 2011, we issued and sold an aggregate of 9,067,825 shares of our series C preferred stock at a price per share of $2.25 for an aggregate purchase price of $20.4 million. The following table sets forth the number of shares of our series C preferred stock that we issued to our 5% stockholders and their affiliates.

Name[1]	Shares of series C preferred stock
Advanced Technology Ventures VIII, L.P.	100,000
Entities affiliated with Bessemer Venture Partners[2]	133,333[3]
CHP III, L.P.[4]	444,444
Eastern Capital Limited	4,000,000
Longwood Fund, LP[5]	444,444
MPM Bioventures V, LP[6]	266,666

(1) *See "Principal stockholders" for more information about shares held by these entities.*

(2) *Stephen Kraus, a member of our board of directors, is employed by Bessemer Venture Partners and has no voting or dispositive power with respect to the shares held by entities affiliated with Bessemer Venture Partners.*

(3) *Consists of (a) 18,667 shares purchased by Bessemer Venture Partners VII Institutional L.P., (b) 42,667 shares purchased by Bessemer Venture Partners VII L.P. and (c) 71,999 shares purchased by BVP VII Special Opportunity Fund L.P.*

(4) *John K. Clarke, a member of our board of directors, is a managing member of CHP III Management, LLC, the general partner of CHP III, L.P.*

(5) *Christoph Westphal, M.D., Ph.D. and Richard Aldrich, members of our board of directors, are partners of Longwood Fund, LP.*

(6) *Ansbert Gadicke, M.D., a member of our board of directors, is the managing director of MPM Capital and a member of MPM Bioventures V LLC, the general partner of MPM Bioventures V GP, LLC, which is the general partner of MPM Bioventures V, LP.*

SERIES B PREFERRED STOCK FINANCING

In July 2011, we issued and sold an aggregate of 16,025,000 shares of our series B preferred stock at a price per share of $2.00 for an aggregate purchase price of $32,050,000. The following table sets forth the number of shares of our series B preferred stock that we issued to our 5% stockholders and their affiliates.

Name[1]	Shares of series B preferred stock
Advanced Technology Ventures VIII, L.P.	2,500,000
Entities affiliated with Bessemer Venture Partners[2]	2,500,000[3]
CHP III, L.P.[4]	2,500,000
Longwood Fund, LP[5]	3,500,000
MPM Bioventures V, LP[6]	2,500,000

(1) *See "Principal stockholders" for more information about shares held by these entities.*

(2) *Stephen Kraus, a member of our board of directors, is employed by Bessemer Venture Partners and has no voting or dispositive power with respect to the shares held by entities affiliated with Bessemer Venture Partners.*

(3) *Consists of (a) 350,000 shares purchased by Bessemer Venture Partners VII Institutional L.P., (b) 800,000 shares purchased by Bessemer Venture Partners VII L.P. and (c) 1,350,000 shares purchased by BVP VII Special Opportunity Fund L.P.*

(4) *John K. Clarke, a member of our board of directors, is a managing member of CHP III Management, LLC, the general partner of CHP III, L.P.*

(5) *Christoph Westphal, M.D., Ph.D. and Richard Aldrich, members of our board of directors, are partners of Longwood Fund, LP.*

(6) *Ansbert Gadicke, M.D., a member of our board of directors, is the managing director of MPM Capital and a member of MPM Bioventures V LLC, the general partner of MPM Bioventures V GP, LLC, which is the general partner of MPM Bioventures V, LP.*

SERIES A PREFERRED STOCK FINANCING

In November 2010 and April 2011, we issued and sold an aggregate of 16,000,000 shares of our series A preferred stock at a price per share of $1.00 for an aggregate purchase price of $16,000,000. The following table sets forth the number of shares of our series A preferred stock that we issued to our 5% stockholders and their affiliates.

Name[1]	Shares of series A preferred stock
Entities affiliated with Bessemer Venture Partners[2]	4,000,000[3]
CHP III, L.P.[4]	4,000,000
Longwood Fund, LP[5]	4,000,000
MPM Bioventures V, LP[6]	4,000,000

(1) *See "Principal stockholders" for more information about shares held by these entities.*

(2) *Stephen Kraus, a member of our board of directors, is employed by Bessemer Venture Partners and has no voting or dispositive power with respect to the shares held by entities affiliated with Bessemer Venture Partners.*

(3) *Consists of (a) 560,000 shares purchased by Bessemer Venture Partners VII Institutional L.P., (b) 1,280,000 shares purchased by Bessemer Venture Partners VII L.P. and (c) 2,160,000 shares purchased by BVP VII Special Opportunity Fund L.P.*

(4) *John K. Clarke, a member of our board of directors, is a managing member of CHP III Management, LLC, the general partner of CHP III, L.P.*

(5) *Christoph Westphal, M.D., Ph.D. and Richard Aldrich, members of our board of directors, are partners of Longwood Fund, LP.*

(6) *Ansbert Gadicke, M.D., a member of our board of directors, is the managing director of MPM Capital and a member of MPM Bioventures V LLC, the general partner of MPM Bioventures V GP, LLC, which is the general partner of MPM Bioventures V, LP.*

RESTRICTED STOCK GRANTS TO CO-FOUNDERS

In August 2010, in connection with our formation, we issued and sold an aggregate of 2,857,138 shares of our common stock at a price per share of $0.00035 for an aggregate purchase price of $1,000 to our co-founders. These shares are subject to repurchase by us pursuant to restricted stock agreements with each of our co-founders. These shares vest with respect to 25% of the shares on the grant date and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date. The following table sets forth the number of shares of common stock that we issued to our co-founders.

Name	Shares of common stock
Richard Aldrich(1)	542,856(2)
Michelle Dipp	171,428
Piyush Gupta, Ph.D.(1)	442,857(3)
Eric Lander, Ph.D.	357,142
Satish Jindal	357,142(4)
Robert Weinberg, Ph.D.	357,142
Christoph Westphal, M.D., Ph.D.(1)	628,571(5)

(1) *Richard Aldrich and Christoph Westphal, M.D., Ph.D. are members of our board of directors. Piyush Gupta, Ph.D. is a former member of our board of directors.*

(2) *135,714 of these shares were subsequently transferred to the Richard H. Aldrich Irrevocable Trust of 2011.*

(3) *85,714 of these shares were issued to Dr. Gupta in connection with his role as a former member of our board of directors.*

(4) *In connection with the transition of Dr. Jindal from our President and Chief Operating Officer to our non-executive employee in February 2011, we repurchased 166,480 shares from him. Accordingly, Dr. Jindal owns 190,662 shares of our common stock as of December 31, 2011.*

(5) *125,714 of these shares were subsequently transferred to The Fountain Irrevocable Trust of 2010.*

SCIENTIFIC ADVISORY BOARD AGREEMENTS WITH CO-FOUNDERS

Three of our co-founders, Robert Weinberg, Ph.D., Eric Lander, Ph.D., and Piyush Gupta, Ph.D., are also members of our scientific advisory board and receive compensation for their participation pursuant to our scientific advisory board agreements with them. The following table sets forth the amount of cash compensation paid to each of these co-founders for their membership on our scientific advisory board since our formation.

Name	Amount
Piyush Gupta, Ph.D.(1)	$ 100,000
Eric Lander, Ph.D.	75,000
Robert Weinberg, Ph.D.	75,000

(1) *Piyush Gupta, Ph.D. is a former member of our board of directors.*

AGREEMENTS WITH ENTITIES AFFILIATED WITH CO-FOUNDERS

From our formation in August 2010 through May 2011, we rented office space from Longwood Fund, LP, an entity affiliated with three of our co-founders, Richard Aldrich, Michelle Dipp and Christoph Westphal, M.D., Ph.D. We paid Longwood Fund, LP an aggregate of $46,000 for our office space.

Transactions with related persons

In October 2010, we entered into agreements regarding the licensing of intellectual property with the Whitehead Institute, an entity affiliated with two of our co-founders, Robert Weinberg, Ph.D. and Piyush Gupta, Ph.D., and the Broad Institute, an entity affiliated with one of our co-founders, Eric Lander, Ph.D. See "Business—Licenses" for additional information regarding these agreements. Pursuant to one of the agreements, we issued 166,664 shares of our common stock to the Whitehead Institute and entities and individuals affiliated with the Whitehead Institute, including two of our co-founders. The following table sets forth the number of shares of common stock that we issued to our co-founders in connection with our agreement with the Whitehead Institute.

Name	Shares of common stock
Eric Lander, Ph.D.	1,750
Robert Weinberg, Ph.D.	6,300

PARTICIPATION IN OFFERING

Certain of our existing stockholders, including our 5% stockholders Advanced Technology Ventures VIII, L.P., Bessemer Venture Partners, CHP III, L.P., Longwood Fund, LP, and MPM Bioventures V, LP, and their affiliated entities, have indicated an interest in purchasing an aggregate of up to approximately $16.3 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, these stockholders may determine to purchase fewer shares than they indicate an interest in purchasing or not to purchase any shares in this offering. In addition, the underwriters could determine to sell fewer shares to these stockholders than the stockholders indicate an interest in purchasing or not to sell any shares to these stockholders.

REGISTRATION RIGHTS

We are a party to an investor rights agreement with certain holders of our common stock and holders of our series A preferred stock, series B preferred stock and series C preferred stock, including some of our directors, executive officers and 5% stockholders and their affiliates and entities affiliated with our directors. The investor rights agreement provides these holders the right, following the completion 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 registration rights.

INDEMNIFICATION AGREEMENTS

Our certificate of incorporation in effect 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

Our board of directors has adopted written policies and procedures for the review of any transaction, arrangement or relationship in which Verastem is 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," has a direct or indirect material interest.

Transactions with related persons

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 principal 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 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 appropriate, approve proposed related person transactions that arise between committee meetings, subject to ratification by the 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 committee after full disclosure of the related person's interest in the transaction. As appropriate for the circumstances, the 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 committee may approve or ratify the transaction only if the committee determines that, under all of the circumstances, the transaction is in Verastem's best interests. The 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 is less than the greater of $200,000 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 charter or bylaws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by the compensation committee in the manner specified in its charter.

Transactions with related persons

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 was our policy for our board of directors to consider the nature of 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 the best interests of, or not contrary to, our best interests. In addition, all related person transactions required prior approval, or later ratification, by our board of directors.

Principal stockholders

The following table sets forth information with respect to the beneficial ownership of our common stock as of December 31, 2011 by:

–> each of our directors;

–> each of our named executive officers;

–> all of our directors and executive officers as a group; and

–> each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock.

The column entitled "Percentage of shares beneficially owned—Before offering" is based on a total of 14,734,116 shares of our common stock outstanding as of December 31, 2011 assuming the conversion of all outstanding shares of our preferred stock into an aggregate of 11,740,794 shares of our common stock upon the closing of this offering.

The column entitled "Percentage of shares beneficially owned—After offering" is based on 19,234,116 shares of our common stock to be outstanding after this offering, including the 4,500,000 shares of our common stock that we are selling in this offering, but not including any additional shares issuable upon exercise of outstanding options or the warrant issuable pursuant to our license agreement with Poniard Pharmaceuticals, Inc. or the shares underlying the restricted stock units granted effective upon the closing of this offering.

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 that are currently exercisable or exercisable within 60 days of December 31, 2011 are considered outstanding and beneficially owned by the person holding the options 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, we believe 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 Verastem, Inc., 215 First Street, Suite 440, Cambridge, Massachusetts 02142.

Certain of our existing stockholders and their affiliated entities have indicated an interest in purchasing an aggregate of up to approximately $16.3 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, these stockholders may determine to purchase fewer shares than they indicate an interest in purchasing or not to purchase any shares in this offering. In addition, the underwriters could determine to sell fewer shares to these stockholders than the stockholders indicate an interest in purchasing or not to sell any shares to these stockholders. The following table does not reflect any potential purchases by these existing principal stockholders or their affiliated entities.

Principal stockholders

Name and address of beneficial owner	Number of shares beneficially owned	Percentage of shares beneficially owned: Before offering	Percentage of shares beneficially owned: After offering
5% stockholders:			
Advanced Technology Ventures VIII, L.P.[1] 1000 Winter Street Waltham, MA 02451	742,857	5.0%	3.9%
Entities affiliated with Bessemer Venture Partners[2] 196 Broadway, 2nd Floor Cambridge, MA 02139	1,895,237	12.9%	9.9%
CHP III, L.P.[3] 230 Nassau Street Princeton, NJ 08542	1,984,126	13.5%	10.3%
Eastern Capital Limited[4] c/o Foreshore Corporate Services Ltd. 4th Floor, Queensgate House 113 South Church Street George Town, Grand Cayman KY1-1104 Cayman Islands	1,142,857	7.8%	5.9%
Longwood Fund, LP[5] 800 Boylston Street, Suite 1555 Boston, MA 02199	2,269,841	15.4%	11.8%
MPM Bioventures V, LP[6] c/o MPM Asset Management 200 Clarendon Street, 54th Floor Boston, MA 02116	1,933,333	13.1%	10.1%
Directors and Executive Officers			
Christoph Westphal, M.D., Ph.D.[7]	2,898,412	19.7%	15.1%
Robert Forrester	128,000	*	*
Jonathan Pachter, Ph.D.	—	—	—
Satish Jindal, Ph.D.	190,662	1.3%	1.0%
Paul Brannelly[8]	18,570	*	*
Peter Elliott, Ph.D.	8,000	*	*
Richard Aldrich[9]	2,812,697	19.1%	14.6%
John K. Clarke[10]	1,984,126	13.5%	10.3%
Ansbert Gadicke, M.D.[11]	1,933,333	13.1%	10.1%
Stephen Kraus[12]	—	—	—
Henri Termeer	—	—	—
All executive officers and directors as a group (8 persons)	7,486,727	50.8%	38.9%

* *Represents beneficial ownership of less than one percent of our outstanding common stock.*

(1) *Consists of (a) 714,286 shares of common stock underlying shares of series B preferred stock, and (b) 28,571 shares of common stock underlying shares of series C preferred stock. No natural person holds voting or dispositive power for the shares of our common stock held by Advanced Technologies Ventures VIII, L.P ("ATV VIII"). ATV Associates VIII, LLC ("ATV VIII LLC") is the general partner of ATV VIII and controls its investment and voting decisions. Decisions of ATV VIII LLC are made by a board of six managing directors (the "ATV Managing Directors"). The ATV Managing Directors are Steve Baloff, Michael Carusi, Wes Raffel, Jean George, Bob Hower and William Wiberg. Each of the ATV Managing Directors disclaims beneficial ownership of the shares held by ATV VIII.*

Principal stockholders

(2) *Consists of (a) 160,000 shares of common stock underlying shares of series A preferred stock held by Bessemer Venture Partners VII Institutional L.P. ("BVP Institutional"), (b) 365,714 shares of common stock underlying shares of series A preferred stock held by Bessemer Venture Partners VII L.P. ("BVP VII"), (c) 617,143 shares of common stock underlying shares of series A preferred stock held by BVP VII Special Opportunity Fund L.P. ("BVP Special Opportunity" and together with BVP Institutional and BVP VII, "Bessemer Venture Partner Entities"), (d) 100,000 shares of common stock underlying shares of series B preferred stock held by Bessemer Venture Partners VII Institutional L.P., (e) 228,571 shares of common stock underlying shares of series B preferred stock held by Bessemer Venture Partners VII L.P., (f) 385,714 shares of common stock underlying shares of series B preferred stock held by BVP VII Special Opportunity Fund L.P., (g) 5,333 shares of common stock underlying shares of series C preferred stock held by Bessemer Venture Partners VII Institutional L.P., (h) 12,191 shares of common stock underlying shares of series C preferred stock held by Bessemer Venture Partners VII L.P., and (i) 20,571 shares of common stock underlying shares of series C preferred stock held by BVP VII Special Opportunity Fund L.P. Deer VII & Co. L.P. ("Deer L.P.") is the general partner of the Bessemer Venture Partner Entities. Deer VII & Co. Ltd. is the general partner of Deer L.P. J. Edmund Colloton, Robin S. Chandra, David J. Cowan, Robert P. Goodman, Jeremy S. Levine and Robert M. Stavis are the directors of Deer VII & Co. Ltd. and share voting and dispositive power over the shares of stock held by the Bessemer Venture Partner Entities. Each of Mr. Colloton, Mr. Chandra, Mr. Cowan, Mr. Goodman, Mr. Levine and Mr. Stavis disclaims beneficial ownership of the shares identified in this footnote except as to his or her respective proportionate pecuniary interest in such shares.*

(3) *Consists of (a) 1,142,857 shares of common stock underlying shares of series A preferred stock, (b) 714,285 shares of common stock underlying shares of series B preferred stock, and (c) 126,984 shares of common stock underlying shares of series C preferred stock. John K. Clarke, Brandon H. Hull, Charles G. Hadley and John J. Park are the managing members of CHP III Management, LLC, the General Partner of CHP III, L.P., and exercise shared voting, investment, and dispositive rights with respect to the shares of stock held by CHP III, L.P. Each of Messrs. Clarke, Hull, Hadley and Park disclaims beneficial ownership of the shares identified in this footnote except as to his respective proportionate pecuniary interest in such shares.*

(4) *Consists of 1,142,857 shares of common stock underlying shares of series C preferred stock. Eastern Capital Limited is a direct wholly owned subsidiary of Portfolio Services Ltd., a Cayman Islands company. Kenneth Dart is the beneficial owner of all of the outstanding shares of Portfolio Services Ltd., which in turn owns all the outstanding shares of Eastern Capital Limited. Eastern Capital Limited and Mr. Dart have shared voting and dispositive power with respect to the shares held.*

(5) *Consists of (a) 1,142,857 shares of common stock underlying shares of series A preferred stock, (b) 1,000,000 shares of common stock underlying shares of series B preferred stock and (c) 126,984 shares of common stock underlying shares of series C preferred stock. Longwood Fund GP, LLC (the "General Partner") is the general partner of Longwood Fund, LP and exercises voting and investment power with respect to securities owned directly by Longwood Fund, LP. Richard Aldrich, Michelle Dipp and Christoph Westphal are the managers of the General Partner and share voting and dispositive power with respect to the securities held by Longwood Fund, LP. The General Partner disclaims beneficial ownership of the securities owned directly by Longwood Fund, LP and this report shall not be deemed an admission that the General Partner is the beneficial owner of such securities, except to the extent of its pecuniary interest therein.*

(6) *Consists of (a) 1,142,857 shares of common stock underlying shares of series A preferred stock, (b) 714,286 shares of common stock underlying shares of series B preferred stock and (c) 76,190 shares of common stock underlying shares of series C preferred stock. MPM Bioventures V GP, LLC ("MPM V GP") is the general partner of MPM Bioventures V, LP and MPM Bioventures V LLC ("MPM V LLC") is the managing member of MPM V GP. Luke Evnin, Todd Foley, Ansbert Gadicke, Vaughn Kalian, James Scopa, Steven St. Peter and John Vander Vort are the members of MPM V LLC and have shared power to vote, hold and dispose of the shares held by MPM Bioventures V, LP. Each disclaims beneficial ownership of the securities reported herein except to the extent of his respective pecuniary interest therein.*

(7) *Consists of (a) 502,857 shares of common stock held by Dr. Westphal, (b) 125,714 shares of common stock held by The Fountain Irrevocable Trust of 2010 and (c) 2,269,841 shares held by Longwood Fund, LP. The trustee of The Fountain Irrevocable Trust of 2010 is James Kittler and he exercises sole voting and investment power of the shares of record held by the trust. The ultimate general partner of Longwood Fund, LP is Longwood Fund GP, LLC. Voting and investment power with respect to the shares held by Longwood Fund, LP are vested in Richard Aldrich, Michelle Dipp and Dr. Westphal, the managers of Longwood Fund GP, LLC.*

(8) *Consists of shares of common stock issuable upon exercise of stock options.*

(9) *Consists of (a) 407,142 shares of common stock held by Mr. Aldrich, (b) 135,714 shares of common stock held by Richard H. Aldrich Irrevocable Trust of 2011 and (c) 2,269,841 shares held by Longwood Fund, LP. The trustee of the Richard H. Aldrich Irrevocable Trust of 2011 is Nicole Aldrich and she exercises sole voting and investment power over the shares of record held by the trust. The ultimate general partner of Longwood Fund, LP is Longwood Fund GP, LLC.*

Principal stockholders

Voting and investment power with respect to the shares held by Longwood Fund, LP. are vested in Mr. Aldrich, Michelle Dipp and Christoph Westphal, the managers of Longwood Fund GP, LLC.

(10) *Consists of 1,984,126 shares held by CHP III, L.P. John K. Clarke, Brandon H. Hull, Charles G. Hadley and John J. Park are the managing members of CHP III Management, LLC, the General Partner of CHP III, L.P., and exercise shared voting, investment, and dispositive rights with respect to the shares of stock held by CHP III, L.P. Each of Messrs. Clarke, Hull, Hadley and Park disclaims beneficial ownership of the shares identified in this footnote except as to his respective proportionate pecuniary interest in such shares.*

(11) *Consists of 1,933,333 shares held by MPM Bioventures V, LP. MPM V GP is the general partner of MPM Bioventures V, LP and MPM V LLC is the managing member of MPM V GP. Luke Evnin, Todd Foley, Ansbert Gadicke, Vaughn Kalian, James Scopa, Steven St. Peter and John Vander Vort are the members of MPM V LLC and have shared power to vote, hold and dispose of the shares held by MPM Bioventures V, LP. Each disclaims beneficial ownership of the securities reported herein except to the extent of his respective pecuniary interest therein.*

(12) *Mr. Kraus serves as an employee of Bessemer Venture Partners, the management company affiliate of the Bessemer Venture Partner Entities that hold an aggregate of 1,895,237 shares of our common stock underlying shares of preferred stock as described above. Mr. Kraus has no voting or dispositive power with respect to the shares held by the Bessemer Venture Partner Entities and disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein.*

Description of capital stock

GENERAL

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 the bylaws that will be in effect upon the closing of this offering. We have filed copies of these documents with the SEC as exhibits to our registration statement of which this prospectus forms a part. The description of the capital stock reflects changes to our capital structure that will occur upon the closing of this offering.

Upon the closing of this offering, our authorized capital stock will consist of 100,000,000 shares of our common stock, par value $0.0001 per share, and 5,000,000 shares of our preferred stock, par value $0.0001 per share, all of which preferred stock will be undesignated.

As of December 31, 2011, we had issued and outstanding:

–> 2,993,322 shares of our common stock outstanding, including 1,434,734 shares of unvested restricted stock subject to repurchase by us, held by 17 stockholders of record;

–> 16,000,000 shares of our series A preferred stock that will automatically convert into 4,571,424 shares of our common stock upon the closing of this offering;

–> 16,025,000 shares of our series B preferred stock that will automatically convert into 4,578,567 shares of our common stock upon the closing of this offering; and

–> 9,067,825 shares of our series C preferred stock that will automatically convert into 2,590,803 shares of our common stock upon the closing of this offering.

As of December 31, 2011, we also had outstanding options to purchase 405,141 shares of our common stock at a weighted-average exercise price of $0.75 per share.

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 outstanding preferred stock.

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately all 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. 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.

PREFERRED STOCK

Under the terms of our certificate of incorporation, our board of directors is authorized 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 AND OTHER EQUITY AWARDS

As of December 31, 2011, options to purchase 405,141 shares of our common stock at a weighted average exercise price of $0.75 per share were outstanding under our 2010 equity incentive plan. Effective upon the closing of this offering, restricted stock units with respect to an aggregate of 600,000 shares of our common stock will be granted under our 2012 incentive plan.

WARRANTS

We have agreed to issue a warrant for the purchase of 142,857 shares of our common stock with an exercise price equal to the average closing price of our common stock during the five days preceding the date of issuance to Poniard Pharmaceuticals, Inc. upon achievement of a milestone described in our license agreement.

DELAWARE ANTI-TAKEOVER LAW AND CERTAIN CHARTER AND BYLAWS PROVISIONS

Delaware law

We are subject to Section 203 of the Delaware General Corporation Law. Subject to certain exceptions, Section 203 prevents a publicly-traded 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 either the interested stockholder attained such status with the approval of our board of directors, the business combination is approved by our board of directors and stockholders in a prescribed manner or the interested stockholder acquired at least 85% of our outstanding voting stock in the transaction in which it became an interested stockholder. 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

Our certificate of incorporation and our bylaws divide our board of directors into three classes with staggered three-year terms. In addition, our certificate of incorporation and our bylaws provide that directors may be removed only for cause and only by the affirmative vote of the holders of 75% of our shares of capital stock present in person or by proxy and entitled to vote. Under our certificate of incorporation and bylaws, 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. Furthermore, our certificate of incorporation provides that the authorized number of directors may be changed only by the resolution of our board of directors. The classification of our board of directors and the limitations on the ability of our stockholders to remove directors, change

the authorized number of directors and fill 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.

Stockholder action; special meeting of stockholders; advance notice requirements for stockholder proposals and director nominations

Our certificate of incorporation and our bylaws provide that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. Our certificate of incorporation and our bylaws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by our chairman of the board, our president or 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.

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 bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our bylaws may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any 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 described above.

Registration rights

We have entered into a second amended and restated investor rights agreement, dated November 1, 2011, which we refer to as the investor rights agreement, with certain holders of shares of our common stock, series A preferred stock, series B preferred stock and series C preferred stock. Upon the completion of this offering, holders of a total of 11,740,794 shares of our common stock as of December 31, 2011, including shares issuable upon conversion of our preferred stock, will have the right to require us to register these shares under the Securities Act of 1933, as amended, or Securities Act, and to participate in future registrations of securities by us, under the circumstances described below. The holders of an additional 2,826,708 shares of our common stock as of December 31, 2011 will have the right 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 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 investor rights agreement, at any time, the holders of a majority of the then outstanding shares having rights under the investor rights 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 if the total amount of registrable shares registered have an aggregate offering price of at least $5.00 million (based on the then current market price or fair value). We are not obligated to file a registration statement pursuant to this provision on more than two occasions, and we are not obligated to file a registration statement pursuant to this provision within 180 days of the effective date of any other registration statement that we may file.

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 investor rights agreement, the holders of at least 30% of the 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 amount of registrable shares being registered have an aggregate offering price of at least $1.00 million (based on the then current market price). We are not obligated to file a Form S-3 pursuant to this provision on more than two occasions in any 12-month period.

Incidental registration rights

If, at any time after the closing of this offering, we propose to file a registration statement under the Securities Act, other than pursuant to the demand registration rights described above, the holders of registrable shares will be entitled to notice of the registration and, subject to specified exceptions, 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 participate pursuant to our investor rights agreement is an underwritten public offering, we agree to enter into an underwriting agreement containing customary representation and warranties and covenants, including without limitation customary provisions with respect to indemnification of the underwriters of such offering.

In the event that any registration in which the holders of registrable shares participate pursuant to our investor rights 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 investor rights 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, related to any demand or incidental registration. The registration rights 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 Computershare Trust Company, N.A.

NASDAQ GLOBAL MARKET

We have applied to list our common stock on The NASDAQ Global Market under the symbol "VSTM."

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 our common stock in the public market, including shares issued upon exercise of outstanding options or restricted stock units or warrants, 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.

Upon the closing of this offering, we will have outstanding an aggregate of 19,234,116 shares of our common stock, assuming the underwriters do not exercise their over-allotment option and no options outstanding as of December 31, 2011 or the warrant issuable pursuant to our license agreement with Poniard Pharmaceuticals, Inc. are exercised and no shares underlying the restricted stock units granted effective upon the closing of this offering are issued.

Of the shares to be outstanding immediately after the closing of this offering, we expect that the 4,500,000 shares to be sold in this offering will be freely tradable without restriction under the Securities Act unless purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act. The remaining 14,734,116 shares of our common stock outstanding after this offering will be "restricted securities" under Rule 144, and we expect that all of these restricted securities will be subject to either the 180-day or 360-day lock-up period under the lock-up agreements as described below or a separate 180-day lock-up arrangement with us. These restricted securities may be sold in the public market only if registered or pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act.

RULE 144

In general, under Rule 144, beginning 90 days after the date of this prospectus, any person who is not our affiliate and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell shares without restriction, subject to the availability of current public information about us. In addition, under Rule 144, any person who is not our affiliate and has not been our affiliate at any time during the preceding three months and has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares immediately upon the closing of this offering without regard to whether current public information about us is available.

Beginning 90 days after the date of this prospectus, a person who is our affiliate or who was our affiliate at any time during the preceding three months and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell 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 197,341 shares immediately after this offering; and

–> the average weekly trading volume of our common stock on The NASDAQ Global Market during the four calendar weeks preceding the filing of a notice of proposed sale of securities pursuant to Rule 144 with respect to the sale.

Sales under Rule 144 by our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

Shares eligible for future sale

Upon expiration of the 180-day lock-up period described below, approximately 11,931,456 shares of our common stock will be eligible for sale under Rule 144, including shares eligible for resale immediately upon the closing of this offering as described above. Upon expiration of the 360-day lock-up period described below, approximately 2,802,660 additional shares of our common stock will be eligible for sale under Rule 144, including shares eligible for resale immediately upon the closing of this offering as described above. We cannot estimate the number of shares of our common stock that our existing stockholders will elect to sell under Rule 144.

RULE 701

In general, under Rule 701 of the Securities Act, any of our employees, consultants or advisors, other than our affiliates, who purchased shares from us in connection with a qualified compensatory stock plan or other written agreement is eligible to resell these shares 90 days after the date of this prospectus in reliance on Rule 144, but without compliance with the holding period requirements of Rule 144 and without regard to the volume of such sales or the availability of public information about us. Subject to the 180-day and 360-day lock-up periods described below, approximately 136,000 shares of our common stock will be eligible for sale in accordance with Rule 701.

LOCK-UP AGREEMENTS

We, each of our directors and executive officers and holders of substantially all of our outstanding shares of common stock have agreed that, without the prior written consent of UBS Securities LLC and Leerink Swann 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, in the case of us, certain holders of our common stock and holders of our common stock issued upon conversion of our preferred stock, or 360 days after the date of this prospectus, in the case of our directors, executive officers and other current holders of substantially all of our common stock, subject to extension in specified circumstances:

–> sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock, or publicly announce an intention to do the same;

–> establish or increase a put equivalent position or liquidate or decrease a call equivalent position with respect to any shares of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock, or publicly announce an intention to do the same;

–> 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 or any securities convertible into or exchangeable or exercisable for shares of our common stock, whether such transaction is to be settled by delivery of shares of our common stock or such other securities, in cash or otherwise, or publicly announce an intention to do the same; or

–> make any demand for or exercise any right with respect to the registration of any shares of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock.

The lock-up restrictions, specified exceptions and the circumstances under which either the 180-day or 360-day lock-up period may be extended are described in more detail under "Underwriting."

REGISTRATION RIGHTS

Subject to the lock-up agreements described above, upon the closing of this offering, the holders of an aggregate of 11,740,794 shares of our common stock will have the right to require us to register these shares under the Securities Act under specified circumstances and the holders of an additional 2,826,708 shares of our common stock will have the right to participate in future registrations of securities by us. After registration pursuant to these rights, these shares will become freely tradable without restriction under the Securities Act. See "Description of capital stock—Registration rights" for additional information regarding these registration rights.

STOCK OPTIONS AND OTHER EQUITY AWARDS

As of December 31, 2011, we had outstanding options to purchase 405,141 shares of our common stock, of which options to purchase 45,712 shares were vested. Effective upon the closing of this offering, we will grant restricted stock units for an aggregate of 600,000 shares of our common stock. Following this offering, we intend to file one or more registration statements on Form S-8 under the Securities Act to register all of the shares of our common stock subject to outstanding options and options and other awards issued or issuable pursuant to our 2012 incentive plan and shares of our common stock subject to outstanding options issued pursuant to our 2010 equity incentive plan. See "Executive compensation—Stock option and other employee benefit plans" for additional information regarding these plans. Accordingly, shares of our common stock registered under the registration statements will be available for sale in the open market, subject to Rule 144 volume limitations applicable to affiliates, and subject to any vesting restrictions and lock-up agreements applicable to these shares.

Underwriting

We are offering the shares of our common stock described in this prospectus through the underwriters named below. UBS Securities LLC and Leerink Swann LLC are acting as joint book-running managers of this offering and the representatives of the underwriters. We have entered into an underwriting agreement with the representatives on behalf of the underwriters named below. Subject to the terms and conditions of the underwriting agreement, each of the underwriters has severally agreed to purchase the number of shares of common stock listed next to its name in the following table:

Underwriters	Number of shares
UBS Securities LLC	
Leerink Swann LLC	
Lazard Capital Markets LLC	
Oppenheimer & Co. Inc	
Rodman & Renshaw, LLC	

The underwriting agreement provides that the underwriters must buy all of the shares if they buy any of them. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

Our common stock is offered subject to a number of conditions, including:

–> receipt and acceptance of our common stock by the underwriters, and

–> the underwriters' right to reject orders in whole or in part.

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses electronically.

OVER-ALLOTMENT OPTION

We have granted the underwriters an option to buy up to an aggregate of 675,000 additional shares of our common stock. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with this offering. The underwriters have 30 days from the date of this prospectus to exercise this option. If the underwriters exercise this option, they will each purchase additional shares approximately in proportion to the amounts specified in the table above.

COMMISSIONS AND DISCOUNTS

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the public offering price. Sales of shares made outside the United States may be made by affiliates of the underwriters. If all the shares are not sold at the initial public offering price, the representatives may change the offering price and the other selling terms. Upon execution of the underwriting agreement, the underwriters will be obligated to purchase the shares at the prices and upon the terms stated therein.

The following table shows the per share and total underwriting discounts and commissions we will pay to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares of our common stock.

	No exercise	Full exercise
Per share	$	$
Total		

We estimate that the total expenses of this offering payable by us, not including the underwriting discounts and commissions, will be approximately $2.1 million.

NO SALES OF SIMILAR SECURITIES

We, each of our directors and executive officers and holders of substantially all of our common stock have entered into lock-up agreements with the underwriters. Under these agreements, subject to certain exceptions, we and each of these persons may not offer, sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock, or publicly disclose the intention to do the same. These restrictions will be in effect for a period of 180 days after the date of this prospectus, in the case of certain holders of our common stock and holders of our common stock issued upon conversion of our preferred stock, or 360 days after the date of this prospectus, in the case of our directors, executive officers and other current holders of substantially all of our common stock, subject in each case to extension in the circumstances described in the paragraph below. The remaining holders of our common stock, who hold in the aggregate less than 1% of our outstanding capital stock as of December 31, 2011 after giving effect to the conversion into common stock of all outstanding shares of our preferred stock upon the closing of this offering, are subject to separate arrangements with us that restrict them from disposing of their shares of common stock for 180 days after the date of this prospectus. At any time, UBS Securities LLC and Leerink Swann LLC, may, in their sole discretion, release some or all of the securities held by our executive officers, directors and the holders of all of our common stock from the lock-up agreements entered into with the underwriters.

The restrictions applicable to us described above do not apply, subject to certain conditions, to the following:

–> the sale of shares of our common stock pursuant to the underwriting agreement;

–> the issuance of shares of our common stock upon the exercise of awards under the 2012 incentive plan or 2010 equity incentive plan or warrants;

–> the grant of awards under the 2012 incentive plan or the 2010 equity incentive plan, provided that the recipient of such grant shall sign and deliver a lock-up;

–> the filing by us of any registration statement on Form S-8 or a successor form thereto; and

–> issuances of our securities in connection with a transaction that includes a commercial relationship or any acquisition of assets or at least a controlling portion of the equity of another entity, provided that (1) the aggregate number of securities issued shall not exceed 5% of the total number of outstanding shares of our common stock immediately following the closing of this offering and (2) the recipient of such securities shall sign and deliver a lock-up.

The restrictions applicable to each of our directors, executive officers and holders of common stock under the lock-up agreements entered into with the underwriters do not apply, subject to certain conditions, to the following:

–> the sale of shares of our common stock pursuant to the underwriting agreement;

–> transfer of shares by any such person (1) as a bona fide gift or gifts, (2) to trusts for the benefit of such person or such person's immediate family, (3) to any entity whose beneficial ownership interests are wholly owned by such person or such person's immediate family, (4) by will or intestacy or (5) to partners, members or stockholders of such person, provided that, in each case, such transferee shall be bound by the terms of the lock-up;

–> the exercise of options under the 2012 incentive plan or 2010 equity incentive plan, provided that no filing under the Securities Exchange Act of 1934, or Exchange Act, reporting a disposition of our common stock to satisfy the exercise price or tax withholding obligations shall be required or shall be voluntarily made in connection therewith during the restricted period;

–> the repurchase of shares of our common stock in connection with the termination of the employment of such person;

–> the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act, provided that such plan does not provide for the disposition of our common stock during the restricted period; and

–> the transfer of shares of our common stock acquired on the open market following the completion of this offering, provided that no filing under the Exchange Act reporting a reduction in beneficial ownership of our common stock shall be required or shall be voluntarily made in connection therewith during the restricted period.

Notwithstanding the foregoing, if (1) during the last 15 calendar days plus three business days of the 180-day or 360-day restricted period, we issue an earnings release or material news or a material event relating to us occurs or (2) prior to the expiration of the 180-day or 360-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180-day or 360-day period, the restrictions described above shall continue to apply until the date that is 15 calendar days plus three business days after the date of the issuance of the earnings release or the occurrence of the material news or material event.

INDEMNIFICATION

We agreed to indemnify the underwriters against certain liabilities, including certain liabilities under the Securities Act. If we are unable to provide this indemnification, we have agreed to contribute to payments the underwriters may be required to make in respect of those liabilities.

NASDAQ GLOBAL MARKET LISTING

We have applied to list our common stock on The NASDAQ Global Market under the symbol "VSTM."

PRICE STABILIZATION, SHORT POSITIONS

In connection with this offering, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our common stock, including:

–> stabilizing transactions;

–> short sales;

–> purchases to cover positions created by short sales;

–> imposition of penalty bids; and

–> syndicate covering transactions.

Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of our common stock while this offering is in progress. These transactions may also include making short sales of our common stock, which involve the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be "covered short sales," which are short positions in an amount not greater than the

underwriters' over-allotment option referred to above, or may be "naked short sales," which are short positions in excess of that amount.

The underwriters may close out any covered short position by either exercising their over-allotment option, in whole or in part, or by purchasing shares in the open market. In making this determination, 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 over-allotment option.

Naked short sales are short sales made in excess of the over-allotment 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 the common stock in the open market that could adversely affect investors who purchased in this offering.

The underwriters also may 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 representatives have repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

As a result of these activities, the price of our common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. The underwriters may carry out these transactions on The NASDAQ Global Market, in the over-the-counter market or otherwise.

DETERMINATION OF OFFERING PRICE

Prior to this offering, there was no public market for our common stock. The initial public offering price will be determined by negotiation by us and the representative of the underwriters. The principal factors to be considered in determining the initial public offering price include:

–> the information set forth in this prospectus and otherwise available to the representatives;

–> our history and prospects and the history of, and prospects for, the industry in which we compete;

–> our past and present financial performance and an assessment of our management;

–> our prospects for future earnings and the present state of our development;

–> the general condition of the securities markets at the time of this offering;

–> the recent market prices of, and the demand for, publicly-traded common stock of generally comparable companies; and

–> other factors deemed relevant by the underwriters and us.

AFFILIATIONS

Certain of the underwriters and their affiliates may in the future from time to time provide investment banking and other financing, trading, banking, research, transfer agent and trustee services to us or our subsidiaries, for which they may in the future receive customary fees and expenses.

Lazard Frères & Co. LLC referred this transaction to Lazard Capital Markets LLC and will receive a referral fee from Lazard Capital Markets LLC in connection therewith.

NOTICE TO INVESTORS

Notice to prospective investors in the European Economic Area

In relation to each member state of the European Economic Area (EEA) that has implemented the Prospectus Directive (each, a relevant member state), other than Germany, with effect from and including the date on which the Prospectus Directive is implemented in that relevant member state (the relevant implementation date), an offer of securities described in this prospectus may not be made to the public in that relevant member state other than:

–> to any legal entity which is a qualified investor as defined in the Prospectus Directive;

–> by the Managers to fewer than 100, or, if the Relevant Member State has implemented the relevant provisions 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 Bookrunners for any such offer; or

–> in any other circumstances falling within Article 3(2) of the Prospectus Directive.

provided that no such offer of securities shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For purposes of this provision, the expression an "offer of securities to the public" 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 securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the expression may be varied in that member state by any measure implementing the Prospectus Directive in that member state, and the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and includes any relevant implementing measure in each relevant member state. The expression 2010 PD Amending Directive means Directive 2010/73/EU.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on its behalf, other than offers made by the underwriters with a view to the final placement of the securities as contemplated in this prospectus. Accordingly, no purchaser of the securities, other than the underwriters, is authorized to make any further offer of the securities on behalf of us or the underwriters.

The EEA selling restriction is in addition to any other selling restrictions set out in this prospectus.

Notice to prospective investors in Australia

This offering memorandum is not a formal disclosure document and has not been, nor will be, lodged with the Australian Securities and Investments Commission. It does not purport to contain all information that an investor or its professional advisers would expect to find in a prospectus or other disclosure document (as defined in the Corporations Act 2001 (Australia)) for the purposes of Part 6D.2 of the Corporations Act 2001 (Australia) or in a product disclosure statement for the purposes of Part 7.9 of the Corporations Act 2001 (Australia), in either case, in relation to the securities.

The securities are not being offered in Australia to "retail clients" as defined in sections 761G and 761GA of the Corporations Act 2001 (Australia). This offering is being made in Australia solely to "wholesale clients" for the purposes of section 761G of the Corporations Act 2001 (Australia) and, as such, no prospectus, product disclosure statement or other disclosure document in relation to the securities has been, or will be, prepared.

This offering memorandum does not constitute an offer in Australia other than to wholesale clients. By submitting an application for our securities, you represent and warrant to us that you are a wholesale client for the purposes of section 761G of the Corporations Act 2001 (Australia). If any recipient of this offering memorandum is not a wholesale client, no offer of, or invitation to apply for, our securities shall be deemed to be made to such recipient and no applications for our securities will be accepted from such recipient. Any offer to a recipient in Australia, and any agreement arising from acceptance of such offer, is personal and may only be accepted by the recipient. In addition, by applying for our securities you undertake to us that, for a period of 12 months from the date of issue of the securities, you will not transfer any interest in the securities to any person in Australia other than to a wholesale client.

Notice to prospective investors in Hong Kong

Our securities may not be offered or sold in Hong Kong, by means of this prospectus or any document other than (1) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (2) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (3) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong). No advertisement, invitation or document relating to our securities may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere) which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the securities which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Notice to prospective investors in Japan

Our securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and our securities will not be offered or sold, directly or indirectly, in Japan, or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan, or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Notice to prospective investors in Singapore

This document has not been registered as a prospectus with the Monetary Authority of Singapore and in Singapore, the offer and sale of our securities is made pursuant to exemptions provided in sections 274 and 275 of the Securities and Futures Act, Chapter 289 of Singapore (SFA). Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of our securities may not be circulated or distributed, nor may our securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (1) to an institutional investor as defined in Section 4A of the SFA pursuant to Section 274 of the SFA, (2) to a relevant person as defined in section 275(2) of the SFA pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (3) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision

of the SFA, in each case subject to compliance with the conditions (if any) set forth in the SFA. Moreover, this document is not a prospectus as defined in the SFA. Accordingly, statutory liability under the SFA in relation to the content of prospectuses would not apply. Prospective investors in Singapore should consider carefully whether an investment in our securities is suitable for them.

Where our securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

–> by a corporation (which is not an accredited investor as defined in Section 4A of the SFA) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

–> for a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

shares of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for six months after that corporation or that trust has acquired the shares under Section 275 of the SFA, except:

–> to an institutional investor (for corporations under Section 274 of the SFA) or to a relevant person defined in Section 275(2) of the SFA, or any person pursuant to an offer that is made on terms that such shares of that corporation or such rights and interest in that trust are acquired at a consideration of not less than S$200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets, and further for corporations, in accordance with the conditions, specified in Section 275 of the SFA;

–> where no consideration is given for the transfer; or

–> where the transfer is by operation of law.

In addition, investors in Singapore should note that the securities acquired by them are subject to resale and transfer restrictions specified under Section 276 of the SFA, and they, therefore, should seek their own legal advice before effecting any resale or transfer of their securities.

Notice to prospective investors in Switzerland

The Prospectus does not constitute an issue prospectus pursuant to Article 652a or Article 1156 of the Swiss Code of Obligations (CO) and the shares will not be listed on the SIX Swiss Exchange. Therefore, the Prospectus may not comply with the disclosure standards of the CO and/or the listing rules (including any prospectus schemes) of the SIX Swiss Exchange. Accordingly, the shares may not be offered to the public in or from Switzerland, but only to a selected and limited circle of investors, which do not subscribe to the shares with a view to distribution.

Notice to prospective investors in United Kingdom

This prospectus is only being distributed to and is only directed at: (1) persons who are outside the United Kingdom; (2) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order); or (3) high net worth companies, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons falling within (1)-(3) together being referred to as "relevant persons"). The shares are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such shares will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this prospectus or any of its contents.

Legal matters

The validity of the shares of common stock offered hereby is being passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP. Ropes & Gray LLP is acting as counsel for the underwriters in connection with this offering.

Experts

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements as of December 31, 2010 and for the period from August 4, 2010 (inception) to December 31, 2010, as set forth in their report included in this prospectus. We have included our financial statements in this prospectus and elsewhere in this registration statement in reliance on Ernst & Young LLP's report, given on 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 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 theses statements is qualified in all respects by this reference.

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 Securities and Exchange Commission 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 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 completion of this offering, we will be subject to the information reporting requirements of the Securities Exchange Act of 1934, and we will file reports, proxy statements and other information with the SEC.

Verastem, Inc.
(A development stage company)

FINANCIAL STATEMENTS

Period from August 4, 2010 (inception) to December 31, 2010 and unaudited information for the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011

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Verastem, Inc.
(A development stage company)

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of
Verastem, Inc.

We have audited the accompanying balance sheet of Verastem, Inc. (a development stage company) (the Company) as of December 31, 2010, and the related statements of operations, redeemable convertible preferred stock and stockholders' deficit and cash flows for the period from August 4, 2010 (inception) to December 31, 2010. 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 audit.

We conducted our audit 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. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audit 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, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Verastem, Inc. as of December 31, 2010 and the results of its operations and its cash flows for the period from August 4, 2010 (inception) to December 31, 2010, in conformity with U.S. generally accounting principles.

/s/ Ernst & Young LLP

Boston, Massachusetts
November 2, 2011, except for Notes 12(b), (c) and (d),
as to which the date is January 10, 2012

Verastem, Inc.
(A development stage company)

BALANCE SHEETS

	December 31, 2010	September 30, 2011 Actual (Unaudited)	September 30, 2011 Pro forma (Unaudited)
	(In thousands except per share data)		
Assets			
Current assets:			
Cash and cash equivalents	$ 3,584	$ 41,421	$ 61,824
Prepaid expenses and other current assets	12	6	6
Total current assets	3,596	41,427	61,830
Property and equipment, net	8	719	719
Other assets	—	132	132
Restricted cash	—	86	86
Total assets	$ 3,604	$ 42,364	$ 62,767
Liabilities, redeemable convertible preferred stock and stockholders' (deficit) equity			
Current liabilities:			
Accounts payable	$ 279	$ 1,246	$ 1,246
Accrued expenses	89	762	762
Total current liabilities	368	2,008	2,008
Deferred rent	—	81	81
Liability for shares subject to repurchase	—	36	36
Commitments and contingencies (*Note 8*)			
Series A redeemable convertible preferred stock, $0.0001 par value; 16,000 shares authorized, 4,000 and 16,000 (unaudited) shares issued and outstanding (actual) at December 31, 2010 and September 30, 2011, respectively and no shares issued and outstanding pro forma (Liquidation preference of $4,000 and $16,000 (unaudited) as of December 31, 2010 and September 30, 2011, respectively)	3,923	15,935	—
Series B redeemable convertible preferred stock, $0.0001 par value; 16,025 shares authorized, issued and outstanding (actual) at September 30, 2011(unaudited) and no shares issued and outstanding pro forma (Liquidation preference of $32,050 as of September 30, 2011(unaudited))	—	31,943	—
Series C redeemable convertible preferred stock, $0.0001 par value; 9,068 shares authorized in November 2011, no shares issued and outstanding actual and pro forma (unaudited)	—	—	—
Common stock, $0.0001 par value; 30,000, 45,000 and 53,093 shares authorized at December 31, 2010, September 30, 2011 (actual, unaudited) and September 30, 2011 (pro forma, unaudited), respectively, 1,015 shares issued and outstanding at December 31, 2010, 1,425 shares issued and outstanding at September 30, 2011 (actual, unaudited) and 13,165 shares issued and outstanding at September 30, 2011 (pro forma, unaudited)	1	1	1
Additional paid-in capital	96	822	69,103
Deficit accumulated during the development stage	(784)	(8,462)	(8,462)
Total stockholders' (deficit) equity	(687)	(7,639)	60,642
Total liabilities, redeemable convertible preferred stock and stockholders' (deficit) equity	$ 3,604	$ 42,364	$ 62,767

See accompanying notes.

Verastem, Inc.
(A development stage company)

STATEMENTS OF OPERATIONS

	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
		(Unaudited)	(Unaudited)
	(In thousands except per share data)		
Operating expenses:			
Research and development	$ 400	$ 5,483	$ 5,883
General and administrative	384	2,195	2,579
Total operating expenses	784	7,678	8,462
Loss from operations	(784)	(7,678)	(8,462)
Net loss	(784)	(7,678)	(8,462)
Accretion of preferred stock	(2)	(18)	(20)
Net loss applicable to common stockholders	$ (786)	$ (7,696)	$ (8,482)
Net loss per share applicable to common stockholders—basic and diluted	$ (0.91)	$ (6.27)	$ (7.70)
Weighted-average number of common shares used in net loss per share applicable to common stockholders—basic and diluted	850	1,226	1,097
Pro forma net loss per share applicable to common stockholders—basic and diluted (unaudited)	$ (0.60)	$ (1.33)	
Weighted-average number of common shares used in pro forma net loss per share applicable to common stockholders—basic and diluted (unaudited)	1,325	5,850	

See accompanying notes.

Verastem, Inc.
(A development stage company)

STATEMENTS OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' (DEFICIT) EQUITY

	Series A redeemable convertible preferred stock		Series B redeemable convertible preferred stock		Series C redeemable convertible preferred stock		Common stock		Additional paid-in capital	Deficit accumulated during the development stage	Totals stockholder's (deficit) equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
	(In thousands except for per share data)										
Balance at August 4, 2010 (inception)	—	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$ —
Sale of common stock to founders	—	—	—	—	—	—	714,286	1	—	—	1
Vesting of restricted stock	—	—	—	—	—	—	133,926	—	—	—	—
Issuance of common stock in exchange for license	—	—	—	—	—	—	166,664	—	46	—	46
Issuance of Series A redeemable convertible preferred stock, net of offering costs of $79	4,000,000	3,921	—	—	—	—	—	—	—	—	—
Accretion of redeemable convertible preferred stock to redemption value	—	2	—	—	—	—	—	—	(2)	—	(2)
Stock-based compensation expense	—	—	—	—	—	—	—	—	52	—	52
Net loss	—	—	—	—	—	—	—	—	—	(784)	(784)
Balance at December 31, 2010	4,000,000	3,923	—	—	—	—	1,014,876	1	96	(784)	(687)
Issuance of Series A redeemable convertible preferred stock(unaudited)	12,000,000	12,000	—	—	—	—	—	—	—	—	—
Issuance of Series B redeemable convertible preferred stock, net of offering costs of $113 (unaudited)	—	—	16,025,000	31,937	—	—	—	—	—	—	—
Accretion of redeemable convertible preferred stock to redemption value (unaudited)	—	12	—	6	—	—	—	—	(18)	—	(18)
Vesting of restricted stock (unaudited)	—	—	—	—	—	—	409,784	—	2	—	2
Stock-based compensation expense (unaudited)	—	—	—	—	—	—	—	—	742	—	742
Net loss (unaudited)	—	—	—	—	—	—	—	—	—	(7,678)	(7,678)
Balance at September 30, 2011 (unaudited)	16,000,000	15,935	16,025,000	31,943	—	—	1,424,660	1	822	(8,462)	(7,639)
Issuance of Series C redeemable convertible preferred stock (unaudited)	—	—	—	—	9,067,825	20,403	—	—	—	—	—
Conversion of redeemable convertible preferred stock into common stock (unaudited)	(16,000,000)	(15,935)	(16,025,000)	(31,943)	(9,067,825)	(20,403)	11,740,794	—	68,281	—	68,281
Pro forma, September 30, 2011 (unaudited)	—	$ —	—	$ —	—	$ —	13,165,454	$ 1	$ 69,103	$ (8,462)	$ 60,642

See accompanying notes.

Verastem, Inc.
(A development stage company)

STATEMENTS OF CASH FLOWS

	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
		(Unaudited) (In thousands)	(Unaudited)
Operating activities			
Net loss	$ (784)	$ (7,678)	$ (8,462)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	—	43	43
Stock-based compensation expense	52	742	794
Common stock issued in exchange for license	46	—	46
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(12)	6	(6)
Other assets	—	(132)	(132)
Accounts payable	279	967	1,246
Accrued expenses and deferred rent	89	754	843
Net cash used in operating activities	(330)	(5,298)	(5,628)
Investing activities			
Purchases of property and equipment	(8)	(754)	(762)
Increase in restricted cash	—	(86)	(86)
Net cash used in investing activities	(8)	(840)	(848)
Financing activities			
Proceeds from issuance of redeemable convertible preferred stock	3,921	43,937	47,858
Net proceeds from the issuance of common stock	1	38	39
Net cash provided by financing activities	3,922	43,975	47,897
Increase in cash and cash equivalents	3,584	37,837	41,421
Cash and cash equivalents at beginning of period	—	3,584	—
Cash and cash equivalents at end of period	$ 3,584	$ 41,421	$ 41,421
Supplemental disclosure of non-cash financing activity			
Accretion of redeemable convertible preferred stock to redemption value	$ 2	$ 18	$ 20

See accompanying notes.

Verastem, Inc.
(A development stage company)

NOTES TO FINANCIAL STATEMENTS

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

1. Organization and basis of presentation

Verastem, Inc. (the "Company"), incorporated on August 4, 2010 as a Delaware corporation, is a biopharmaceutical company focused on discovering and developing proprietary small molecule drugs targeting cancer stem cells along with proprietary companion diagnostics. The Company's operations to date have been limited to organizing and staffing the Company, business planning, raising capital, acquiring and developing its technology, identifying potential product candidates and undertaking preclinical studies of its most advanced product candidates. The Company has not commenced its planned principal operations. Accordingly, the Company is considered to be in the development stage as defined in Financial Accounting Standards Board Accounting Standards Codification Topic 915, *Development Stage Entities*.

The Company is subject to a number of risks similar to other life science companies in the development stage, including, but not limited to, the need to obtain adequate additional funding, possible failure of preclinical testing or clinical trials, inability to obtain marketing approval of product candidates, competitors developing new technological innovations, market acceptance of the Company's products and protection of proprietary technology. If the Company does not successfully commercialize any of its product candidates, it will be unable to generate product revenue or achieve profitability. As of December 31, 2010 and September 30, 2011, the Company had a deficit accumulated during the development stage of $784,000 and $8.5 million, respectively. The Company expects that its cash balance at December 31, 2010, the $12 million of proceeds from the issuance of Series A redeemable convertible preferred stock in April 2011, the $32.1 million of proceeds from the issuance of Series B redeemable convertible preferred stock in July 2011 and the $20.4 million of proceeds from the issuance of Series C redeemable convertible preferred stock in November 2011 will fund its operations through at least January 1, 2012.

2. Significant accounting policies

Unaudited interim financial data

The accompanying unaudited September 30, 2011 interim balance sheet and the statements of operations, redeemable convertible preferred stock and stockholders' deficit, and cash flows for the nine months ended September 30, 2011 and the related interim information contained within the notes to the financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission for interim financial information. Accordingly, they do not include all of the information and the notes required by U.S. generally accepted accounting principles for complete financial statements. In the opinion of management, the unaudited interim financial statements reflect all adjustments, consisting of normal and recurring adjustments, necessary for the fair statement of the Company's financial position at September 30, 2011 and results of its operations and its cash flows for the nine months then ended. The results for the nine months ended September 30, 2011 are not necessarily indicative of future results.

Unaudited pro forma presentation

On October 25, 2011, the Company's board of directors authorized management of the Company to file a registration statement with the Securities and Exchange Commission permitting the Company to sell shares of its common stock to the public. The unaudited pro forma balance sheet as of

Verastem, Inc.
(A development stage company)

NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

September 30, 2011 reflects the issuance and sale of 9,067,825 shares of Series C convertible preferred stock for an aggregate purchase price of $20.4 million in November 2011 and the conversion of all Series A, B and C convertible preferred stock into 11,740,794 shares of common stock, occurring immediately prior to the closing of the Company's proposed initial public offering.

Unaudited pro forma net loss per share is computed using the weighted-average number of common shares outstanding after giving effect to the pro forma effect of the conversion of all redeemable convertible preferred stock during the year ended December 31, 2010 and the nine months ended September 30, 2011 into shares of the Company's common stock as if such conversion had occurred at the beginning of the period presented, or the date of original issuance, if later. The 9,067,825 shares of Series C convertible preferred stock issued in November 2011 are not reflected in the weighted-average number of common shares outstanding because this issuance occurred after September 30, 2011.

Use of estimates

The preparation of the Company's financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from such estimates.

The Company utilizes significant estimates and assumptions in determining the fair value of its common stock. The Company granted stock options at exercise prices not less than the fair market value of its common stock as determined by the board of directors, with input from management. The board of directors has determined the estimated fair value of the Company's common stock based on a number of objective and subjective factors, including external market conditions affecting the biotechnology industry sector and the prices at which the Company sold shares of redeemable convertible preferred stock, the superior rights and preferences of securities senior to the Company's common stock at the time and the likelihood of achieving a liquidity event, such as an initial public offering or sale of the Company.

The Company utilized various valuation methodologies in accordance with the framework of the 2004 American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, to estimate the fair value of its common stock. The methodologies included an asset-based approach and the current value method for the Company's initial common stock valuation as of November 30, 2010, the option pricing method utilizing the reverse backsolve method to estimate the Company's underlying equity value as of July 31, 2011 and a methodology that determined an estimated value under an IPO scenario and a sale scenario based upon an assessment of the probability of occurrence of each scenario as of September 30, 2011. Each valuation methodology includes estimates and assumptions that require the Company's judgment. These estimates include assumptions regarding future performance, including the successful completion of preclinical studies and clinical trials and the time to completing an IPO or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

Verastem, Inc.
(A development stage company)

NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

Segment and geographic information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company views its operations and manages its business in one operating segment, which is the business of developing drugs that target cancer stem cells, and the Company operates in only one geographic segment.

Comprehensive income (loss)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss was equal to net loss for all periods presented.

Cash and cash equivalents

The Company considers all highly liquid investments with an original or remaining maturity of three months or less at the date of purchase to be cash equivalents. Cash equivalents of $40.0 million as of September 30, 2011 consist of money market funds. There were no cash equivalents as of December 31, 2010.

Fair value of financial instruments

The Company is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. The fair value hierarchy is now established that prioritizes valuation inputs based on the observable nature of those inputs. The fair value hierarchy applies only to the valuation inputs used in determining the reported fair value of the investments and is not a measure of the investment credit quality. The hierarchy defines three levels of valuation inputs:

Level 1 inputs Quoted prices in active markets for identical assets or liabilities

Level 2 inputs Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly

Level 3 inputs Unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability

The following table presents information about the Company's financial assets that have been measured at fair value at September 30, 2011 and indicates the fair value hierarchy of the valuation inputs utilized to determine such fair value (in thousands).

Description	Total	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
		(Unaudited)		
Cash equivalents	$ 40,000	$ 40,000	$ —	$ —

Verastem, Inc.
(A development stage company)

NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

There were no financial instruments recorded at fair value as of December 31, 2010. The carrying amounts of accounts payable and accrued expenses approximate their fair values due to their short-term maturities.

Concentrations of credit risk and off-balance sheet risk

Cash and cash equivalents are financial instruments that potentially subject the Company to concentrations of credit risk. As of December 31, 2010, substantially all of the Company's cash was deposited in accounts at a single financial institution. As of September 30, 2011, the Company's cash and cash equivalents were deposited at two financial institutions. The Company maintains its cash and cash equivalents with high quality, accredited financial institutions and, accordingly, such funds are subject to minimal credit risk. The Company has no significant off-balance sheet concentrations of credit risk, such as foreign currency exchange contracts, option contracts or other hedging arrangements.

Property and equipment

Property and equipment consists of laboratory equipment, office furniture, and computer equipment. Expenditures for repairs and maintenance are recorded to expense as incurred, whereas major betterments are capitalized as additions to property and equipment. Depreciation is calculated over the following estimated useful lives of the assets:

Laboratory equipment	5 years
Furniture	5 years
Computer equipment	3 years

Upon retirement or sale, the cost of the disposed asset and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is recognized.

The Company reviews its long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying value of assets may not be fully recoverable and that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the undiscounted cash flow to the recorded value of the asset. If impairment is indicated, the asset will be written down to its estimated fair value. To date, no such impairment losses have been recorded.

Organizational costs

All organizational costs have been expensed as incurred.

Research and development costs

The Company expenses research and development costs to operations as incurred. Research and development expenses consist of costs associated with research activities, including drug discovery efforts and the development of therapeutic product candidates and companion diagnostics. The Company accounts for nonrefundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when

the goods have been received rather than when the payment is made. Research and development expenses consist of:

–> employee-related expenses, including salaries, benefits, travel and stock-based compensation expense;

–> external research and development expenses incurred under arrangements with third parties, such as contract research organizations, or CROs, manufacturing organizations and consultants, including the scientific advisory board;

–> license fees; and

–> facilities, depreciation and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, depreciation of leasehold improvements and equipment, and laboratory and other supplies.

Stock-based compensation

The Company expenses the fair value of employee stock options over the requisite service period, which is the vesting period. Compensation expense is measured using the fair value of the award at the grant date, net of estimated forfeitures, and is adjusted annually to reflect actual forfeitures. The fair value of each stock-based award is estimated using the Black-Scholes option valuation model and is expensed on a straight-line basis over the vesting period.

Stock-based awards issued to nonemployees, including directors for non-board related services, are accounted for based on the fair value of such services received or of the equity instruments issued, whoever is more reliably measured. These stock-based option awards are revalued at each vesting date using the fair value method.

Redeemable convertible preferred stock

The carrying value of the Company's Series A and Series B redeemable convertible preferred stock is adjusted by periodic accretions such that the carrying value will equal the redemption amount at the redemption date. The carrying value is also adjusted to reflect dividends when and if declared by the board of directors. No dividends have been declared by the board of directors since inception.

Income taxes

The Company accounts for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Tax benefits are recognized when it is more likely than not that a tax position will be sustained during an audit. Deferred tax assets are reduced by a valuation allowance if current evidence indicates that it is considered more likely than not that these benefits will not be realized.

Verastem, Inc.
(A development stage company)

NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

Net loss per share

Basic and diluted net loss per common share is calculated by dividing net loss applicable to common stockholders by the weighted-average number of common shares outstanding during the period, without consideration for common stock equivalents. The Company's potentially dilutive shares, which include redeemable convertible preferred stock, outstanding stock options and unvested restricted stock are considered to be common stock equivalents and are only included in the calculation of diluted net loss per share when their effect is dilutive. The following table reconciles net loss to net loss applicable to common shareholders (in thousands, except per share data):

	Period from August 4, 2010 (inception) through December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
		(Unaudited)	(Unaudited)
Net loss	$ (784)	$ (7,678)	$ (8,462)
Accretion of redeemable convertible preferred stock	(2)	(18)	(20)
Net loss applicable to common stockholders	$ (786)	$ (7,696)	$ (8,482)
Weighted-average number of common shares used in net loss per share applicable to common stockholders—basic and diluted	850	1,226	1,097
Net loss per share applicable to common stockholders—basic and diluted	$ (0.91)	$ (6.27)	$ (7.70)

The amounts in the table below were excluded from the calculation of diluted net loss per share, prior to the use of the treasury stock method, due to their anti-dilutive effect (in thousands):

	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
		(Unaudited)	(Unaudited)
Preferred stock	1,143	9,150	9,150
Outstanding stock options	177	405	405
Unvested restricted stock	2,009	1,569	1,569

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NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

3. Property and equipment

Property and equipment and related accumulated depreciation are as follows (in thousands):

	December 31, 2010	September 30, 2011 (Unaudited)
Computer equipment	$ —	$ 27
Laboratory equipment	8	691
Furniture	—	44
	8	762
Less: accumulated depreciation	—	(43)
	$ 8	$ 719

The Company did not record any depreciation expense in the period from August 4, 2010 (inception) to December 31, 2010. Depreciation expense was $43,000 for the nine months ended September 30, 2011 and for the period from August 4, 2010 (inception) to September 30, 2011.

4. Redeemable convertible preferred stock

In November 2010, the Company sold 4 million shares of Series A redeemable convertible preferred stock (Series A Preferred Stock) at a price of $1.00 per share for gross proceeds of $4 million. In accordance with the terms of the Series A Stock Purchase Agreement, the Company sold an additional 12 million shares at $1.00 per share in a second subsequent closing. The milestones necessary to achieve the subsequent closing were met in April 2011 and the Company sold 12 million shares of Series A Preferred Stock for gross proceeds of $12 million. The Company incurred approximately $79,000 of issuance costs as part of the first closing of the Series A Preferred Stock. No additional issuance costs were incurred as part of the second closing. The issuance costs are being accreted through the earliest redemption date.

In July 2011, the Company sold approximately 16 million shares of series B redeemable convertible preferred stock (Series B Preferred Stock) at a price of $2.00 per share for gross proceeds of approximately $32 million. The Company incurred approximately $113,000 of issuance costs as part of the closing of the Series B Preferred Stock. The issuance costs are being accreted through the earliest redemption date.

The Company assessed the Series A Preferred Stock and B Preferred Stock (collectively, the Preferred Stock) for any beneficial conversion features or embedded derivatives that would require bifurcation from the Preferred Stock and receive separate accounting treatment. On the date of each issuance, the value of the common stock into which the Preferred Stock is convertible had a fair value less than the effective conversion price of the Preferred Stock and, as such, there was no intrinsic value on the respective commitment dates. No embedded derivatives were identified that would require bifurcation.

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NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

The rights, preferences, and privileges of Preferred Stock are as follows:

Conversion

Shares of Preferred Stock are convertible into common stock based on a defined conversion ratio, which is originally set at one-for-one, adjustable for certain dilutive events. Conversion is at the option of the holders of Preferred Stock (Preferred Stockholders) at anytime without any additional considerations, although conversion is automatic upon the earlier of the sale of shares of common stock to the public at a price of at least $10.50 per share, for gross proceeds of at least $35 million, and where the shares are traded on either the New York Stock Exchange or NASDAQ or upon the written consent of holders of at least 60% of the outstanding Preferred Stock.

Dividends

Prior to the payment of any dividend, except a common stock dividend, to the common stockholders, the Preferred Stockholders are entitled to receive an amount at least equal to the amount that would have been received by the Preferred Stockholders had all shares of Preferred Stock been converted to common stock immediately prior to issuance of the dividend.

Liquidation preference

In the event of any liquidation, dissolution or winding up of the Company, including a deemed liquidation event, such as certain mergers or a disposition of substantially all the assets of the Company, unless holders of at least 60% of the outstanding Preferred Stock elect otherwise, the Preferred Stockholders are entitled to receive, in preference to common stockholders, an amount equal to the Original Issue Price ($1.00 per share for Series A Preferred Stock and $2.00 per share for Series B Preferred Stock, adjustable for certain dilutive events) plus all declared but unpaid dividends. If the Company has insufficient assets to pay the Preferred Stockholders the full amount to which they are entitled, the Preferred Stockholders share ratably in any distribution in proportion to the respective amounts which would otherwise be payable.

After payment of these preferential amounts, the remaining assets of the Company are distributable ratably to the holders of common stock and Preferred Stock on an as-converted to common basis. However, the Preferred Stockholders are limited to the receipt of an aggregate amount (including through payment of the preferential amounts described above) equal to the greater of:

(1) 1.75 times the aggregate amount of the applicable Original Purchase Price, and

(2) the amount the Preferred Stockholder would have received if all Preferred Stock had been converted to common stock immediately prior to the liquidation event.

Voting rights

Holders of the Preferred Stock are entitled to vote as a single class with the holders of common stock, and have one vote for each equivalent common share into which the Preferred Stock is convertible. A 60% vote of the Preferred Stockholders is required in order to effect a liquidation, reclassification or recapitalization of the Company's capital stock or a deemed liquidation event, such as certain mergers or a disposition of substantially all the assets of the Company, amend the certificate of incorporation

or bylaws, create or issue shares of another class of stock that is pari passu or senior to the Preferred Stock, repurchase or redeem or pay any dividend on any capital stock, subject to limited exceptions, issue any debt security such that the Company's aggregate indebtedness would exceed $1 million, acquire capital stock of another entity, increase or decrease the authorized number of directors or increase the number of shares of common stock reserved under the Company's equity incentive plan. The holders of the Series A Preferred Stock are entitled to elect four directors, the Preferred Stockholders and common stockholders, voting as one class on an as-converted basis, are entitled to elect two directors, and the common stockholders are entitled to elect one director.

Redemption

The Preferred Stock is redeemable at the applicable Original Issue Price plus any declared but unpaid dividends. The Series B Preferred Stock is redeemable beginning in 2016 at the demand of holders of at least two-thirds of the Series B Preferred Stock. The Series A Preferred Stock is redeemable upon the redemption of another series of Preferred Stock at the demand of holders of at least two-thirds of the Series A Preferred Stock. The redemption for the Preferred Stock is payable in three equal annual installments.

5. Common stock

The Company has reserved the following shares of common stock for the potential conversion of outstanding Preferred Stock and the exercise of stock options (in thousands):

	December 31, 2010	September 30, 2011
		(Unaudited)
Series A Preferred Stock	4,571	4,571
Series B Preferred Stock	—	4,579
Stock options	405	563
	4,976	9,713

Each share of common stock is entitled to one vote, subject to certain voting rights of the Preferred Stock as discussed in Note 4. The holders of the common stock are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, subject to the prior rights of the Preferred Stockholders.

Common stock issued for license

The Company issued 166,664 shares of common stock in the period from August 4, 2010 (inception) to December 31, 2010 in exchange for certain intellectual property rights. The fair value of the common stock was determined to be $0.28 per share and the fair value was determined to be more readily determinable than the fair value of the license. As a result, the fair value of the shares of approximately $46,000 was recorded as research and development expense.

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NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

6. Stock-based compensation

In November 2010, the Company adopted the Verastem, Inc. 2010 Equity Incentive Plan (the Plan) under which it may grant incentive stock options (ISOs), nonstatutory stock options (NSOs), restricted stock awards, restricted stock unit awards and stock appreciation rights to purchase up to 404,762 shares of common stock to eligible employees, officers, directors and consultants. In March 2011, the Company increased the number of shares of common stock available under the Plan to 571,242 shares. As of September 30, 2011, 30,101 shares are available for future issuance under the Plan. Terms of stock option agreements, including vesting requirements, are determined by the board of directors, subject to the provisions of the Plan. Generally, options granted by the Company vest over four years, expire no later than ten years from the date of grant and have an exercise price equal to the estimated fair value of the common stock as determined by the board of directors on the date of grant.

Restricted common stock

In August 2010, the Company issued 2.9 million shares of its common stock to the founders at a purchase price of $0.00035 per share, determined to be the fair value of the common stock on the date of issuance. The shares were issued under restricted stock purchase agreements, which allow the Company, at its discretion, to repurchase unvested shares if the founders terminate their relationship with the Company. Upon execution of the restricted stock purchase agreements, 25% of the shares vested immediately and the remaining shares vest ratably on a quarterly basis over a four year term.

During the nine months ended September 30, 2011, the Company issued 256,000 shares of its common stock to new employees of the Company at a purchase price of $0.28 per share, determined to be the fair value of the common stock on the date of issuance. The shares were issued under the terms of the Plan, and allow the Company, at its discretion, to repurchase unvested shares if the employees terminate their relationship with the Company. The shares vest over a four year term, with 25% vesting after the first year and the remainder vesting ratably on a monthly basis for the remaining three years. The purchase price received for the shares was not material to the financial statements. The shares are recorded in stockholders deficit as they vest.

The Company records stock-based compensation expense for the common stock subject to repurchase based on the grant date intrinsic value for employees and the vesting date intrinsic value for non-employees. All of the restricted shares were issued at fair value. The Company has recorded stock-based compensation expense of $51,000, $597,000 and $648,000 for the period from August 4, 2010 (inception) to December 31, 2010, for the nine months ended September 30, 2011 and for the period from August 4, 2011 (inception) to September 30, 2011, respectively, associated with restricted common stock. The $597,000 recorded for the nine months ended September 30, 2011 includes $34,000 associated with modifications to certain restricted stock purchase agreements.

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NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

A summary of the Company's restricted stock activity and related information is as follows (in thousands, except per share data):

	Shares	Weighted-average purchase price per share
Outstanding at August 4, 2010	—	$ —
Granted	2,857	0.00035
Vested	(848)	0.00035
Outstanding at December 31, 2010	2,009	0.00035
Granted (unaudited)	256	0.2800
Vested (unaudited)	(410)	0.0060
Forfeited (unaudited)	(286)	0.1173
Outstanding at September 30, 2011 (unaudited)	1,569	0.0231

Stock options

A summary of the Company's stock option activity and related information follows (in thousands, except per share data):

	Shares	Weighted-average price per share	Weighted-average remaining contractual term (years)	Aggregate intrinsic value
Outstanding at August 4, 2010	—	$ —		
Granted	177	0.28		
Outstanding at December 31, 2010	177	0.28	9.9	$ 12
Granted (unaudited)	228	1.12		
Outstanding at September 30, 2011 (unaudited)	405	0.75	9.5	176
Exercisable at December 31, 2010	—	$ 0.28	9.9	$ 12
Exercisable at September 30, 2011 (unaudited)	1	$ 0.28	9.7	$ —
Vested and expected to vest at December 31, 2010	177	$ 0.28	9.9	$ 12
Vested and expected to vest at September 30, 2011 (unaudited)	405	$ 0.75	9.7	$ 176

NOTES TO FINANCIAL STATEMENTS (Continued)
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The fair value of each stock-based award is estimated on the grant date using the Black-Scholes option-pricing model using the following assumptions:

	December 31, 2010	Nine months ended September 30, 2011
		(Unaudited)
Risk-free interest rate	2.0%	1.1-2.7%
Dividend yield	—	—
Volatility	67%	69-70%
Expected term (years)	6.1	6.0-6.1

The Company uses the simplified method as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term as it does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term for options granted to employees and utilizes the contractual term for options granted to non-employees. The expected term is applied to the stock option grant group as a whole, as the Company does not expect substantially different exercise or post-vesting termination behavior among its employee population. The computation of expected volatility is based on the historical volatility of a representative group of companies with similar characteristics to us, including early stage of product development and therapeutic focus. The representative group of companies consisted of Alnylam Pharmaceuticals, Inc., Anadys Pharmaceuticals, Inc., ARIAD Pharmaceuticals, Inc., Curis Inc., Cytokinetics, Inc., Exelixis, Inc. and Momenta Pharmaceuticals, Inc. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected life of the stock options. Management estimates expected forfeitures based on data from a representative group of companies with similar characteristics to us and recognizes compensation costs only for those equity awards expected to vest.

For the period from August 4, 2011 (inception) to December 31, 2010, the Company did not recognize any stock-based compensation for employee stock option grants. The Company recognized total stock-based compensation expense for employee stock option grants of $8,000 in the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011. The weighted-average grant date fair value of options granted in the period from August 4, 2010 (inception) to December 31, 2010, the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011 was $0.18, $0.75 and $0.60 per share, respectively.

Stock-based awards issued to nonemployees, including directors for non-board related services, are accounted for using the fair value method. These stock-based option awards are revalued on each vesting and reporting date. The Company recognized total stock-based compensation expense of approximately $1,000, $137,000, and $138,000 in the period from August 4, 2010 (inception) to December 31, 2010, the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011, respectively. Due to an operating loss, the Company does not record tax benefits associated with stock-based compensation and option exercises. Tax benefits will be recorded when realized.

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NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

At December 31, 2010 and September 30, 2011, there was $35,000 and $625,000 of total unrecognized compensation cost related to nonvested stock options, respectively. As of December 31, 2010 and September 30, 2011, the Company expects to recognize these costs over a remaining weighted-average period of 3.8 years and 3.2 years, respectively.

7. Income taxes

As of December 31, 2010 the Company had federal net operating loss carryforwards of approximately $570,000 and state net operating loss carryforwards of $578,000, which are available to reduce future taxable income. The Company also had federal tax credits of $15,000 and state tax credits of $5,000, which may be used to offset future tax liabilities. The net operating loss (NOL) and tax credit carryforwards will expire at various dates through 2030. The NOL and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities. Net operating loss and tax credit carryforwards are subject to review and possible adjustment and may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant shareholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years.

A reconciliation of income taxes computed using the U.S. federal statutory rate to that reflected in operations follows:

	Period from August 4, 2010 (inception) to December 31, 2010
Income tax benefit using U.S. federal statutory rate	34.00%
State income taxes, net of federal benefit	5.62%
Research and development tax credits	1.96%
Permanent items	(0.78%)
Change in the valuation allowance	(40.80%)
Other	—
	—%

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NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

The principal components of the Company's deferred tax assets are as follows:

	December 31, 2010
Deferred tax assets:	
Net operating loss carryforwards	$ 225
Capitalized research and development	55
Research and development credits	18
Stock-based compensation	20
Other	2
Gross deferred tax assets	320
Valuation allowance	(320)
Net deferred tax asset	$ —

The Company has recorded a valuation allowance against its deferred tax assets at December 31, 2010 because the Company's management believes that it is more likely than not that these assets will not be fully realized. The increase in the valuation allowance in 2010 primarily relates to the net loss incurred by the Company.

Upon inception, the Company adopted accounting guidance related to accounting for uncertainty in income taxes. The Company's reserves related to taxes are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is more likely than not to be realized following resolution of any potential contingencies present related to the tax benefit. Upon adoption, the Company recognized no material adjustment for unrecognized income tax benefits. As of the adoption date and through December 31, 2010, the Company had no unrecognized tax benefits or related interest and penalties accrued. The Company has not, as yet, conducted a study of research and development (R&D) credit carryforwards. This study may result in an adjustment to the Company's R&D credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's R&D credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the balance sheet or statement of operations if an adjustment were required. The Company would recognize both accrued interest and penalties related to unrecognized benefits in income tax expense. The Company's uncertain tax positions are related to years that remain subject to examination by relevant tax authorities. Since the Company is in a loss carryforward position, the Company is generally subject to examination by the U.S. federal, state and local income tax authorities for all tax years in which a loss carryforward is available.

8. Commitments and contingencies

From November 2010 through May 2011, the Company leased office space from a shareholder. There was no formal lease arrangement with the shareholder. Rent paid to the shareholder was $12,000, $34,000 and $46,000 for the period from August 4, 2010 (inception) to December 31, 2010, the

nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011, respectively.

In May 2011, the Company entered into a non-cancelable operating lease for office and laboratory space, which expires October 31, 2014. The lease agreement provides for free rent for the first four months of the lease term and includes escalating rent payments. The rent expense is recorded on a straight-line basis over the lease term. The Company is also obligated to pay for certain operating costs and a proportional share of certain common area costs. The Company has the right to extend the lease for a two-year period. The annual rent for each additional year is determined annually at the then fair market rate. The Company secured a letter of credit for $86,000 in connection with the lease, which is included in restricted cash on the balance sheet. The minimum aggregate future lease commitments are as follows (in thousands):

2011	$ 115
2012	351
2013	360
2014	307
	$ 1,133

The Company recorded rent expense of $12,000, $199,000 and $211,000 for the period from August 4, 2010 (inception) to December 31, 2010, the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011, respectively.

9. Accrued expenses

Accrued expenses consist of the following (in thousands):

	December 31, 2010	September 30, 2010 (Unaudited)
Professional fees	$ 35	$ 173
License fees	30	—
Compensation and related benefits	15	391
Deferred rent	—	25
Contract research organizations	—	103
Other expenses	9	70
	$ 89	$ 762

10. License agreements

In October 2010, the Company entered into an exclusive license agreement with the Whitehead Institute for Biomedical Research (the Licensor) for certain intellectual property. The Company paid the Licensor an upfront license fee and reimbursed patent related fees and costs incurred by the Licensor and affiliates of the Licensor totaling $104,000 in the aggregate and issued 166,664 shares of

common stock to the Licensor and entities and individuals affiliated with the Licensor. The fair value of the common stock was determined to be $0.28 per share, and the fair value was determined to be more readily determinable than the fair value of the license. As a result, the fair value of the shares of approximately $46,000 was recorded as research and development expense. Under the terms of the agreement, the Company also agreed to pay annual license maintenance fees, milestone payments, royalties as a percentage of net sales and a percentage of sublicense income the Company receives. Annual license maintenance fees are creditable against royalties earned during the same calendar year and are not material to the financial statements. Milestone payments are triggered upon the achievement of specified development, regulatory and commercialization milestones and are not creditable against royalties. Actual amounts due under the agreement will vary depending on the number of products developed, the type and development path of the products, and other related factors. Milestone payments could total up to $1.6 million. The Company may terminate the agreement at any time with 90 days' prior written notice.

11. Employee benefit plan

In June 2011, the Company adopted a 401(k) retirement and savings plan (the 401(k) Plan) covering all employees. The 401(k) Plan allows employees to make pre-tax contributions up to the maximum allowable amount set by the IRS. Under the 401(k) Plan, the Company may make discretionary contributions as approved by the board of directors. During the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011, the Company made contributions to the 401(k) Plan of $25,000.

12. Subsequent events

The Company reviews all activity subsequent to year end but prior to the issuance of the financial statements for events that could require disclosure or that could impact the carrying value of assets or liabilities as of the balance sheet date. All significant subsequent events have been properly disclosed in the financial statements.

(a) In November 2011, the Company sold approximately 9.1 million shares of Series C redeemable convertible preferred stock (Series C Preferred Stock) at a price of $2.25 per share for gross proceeds of $20.4 million. The Original Issue Price of the Series C Preferred Stock is $2.25 per share. The rights, preferences and privileges of the Series C Preferred Stock are substantially consistent with those described in Note 4 with respect to conversion, dividends, liquidation, voting and redemption. However, as a result of the issuance of the Series C Preferred Stock, the vote or consent of the Preferred Stock with respect to conversion, liquidation and the matters described in Note 4 under "Voting" now requires the vote or consent of holders of at least 60% of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock voting as a single class in addition to the vote or consent of holders of at least 60% of the Series A Preferred Stock and Series B Preferred Stock voting as a single class. In addition, the Series C Preferred Stock is redeemable beginning in 2016 at the demand of specified holders of the Series C Preferred Stock.

(b) On November 17, 2011, the Company entered into an exclusive, worldwide license agreement with Poniard Pharmaceuticals, Inc. to develop, make, use and sell compounds and products covered by the licensed patent rights for the diagnosis, treatment, prevention or control of human

NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

diseases and conditions. Under the agreement, the Company paid an upfront license fee and agreed to pay $13,250,000 upon the achievement of specified development and regulatory milestones. The Company also agreed to issue to Poniard a warrant to purchase 142,857 shares of common stock upon the first dosing of the first patient in a Phase 1 clinical trial of a licensed product. The exercise price of such warrant would be equal to the average closing price of the Company's common stock during the five trading days preceding such issue date. In addition, the Company agreed to pay royalties as a percentage of net sales of licensed products.

(c) On December 16, 2011, the Company amended and restated an existing non-exclusive license agreement with the Licensor pursuant to which the Company obtained an exclusive license to certain intellectual property. The Company paid the Licensor an upfront license fee and agreed to make milestone payments of up to $825,000 upon the achievement of specified regulatory and commercialization milestones. In addition, the Company agreed to pay royalties as a percentage of net sales of licensed products.

(d) In January 2012, the Company's board of directors and stockholders approved a one-for-3.5 reverse stock split of the Company's common stock. The reverse stock split became effective on January 10, 2012. All share and per share amounts in the financial statements have been retroactively adjusted for all periods presented to give effect to the reverse stock split, including reclassifying an amount equal to the reduction in par value to additional paid-in capital. In addition, the Company's stockholders approved a reduction in the per share price required for the automatic conversion of the Preferred Stock into common stock upon the sale of shares of common stock to the public from $10.50 per share to $8.75 per share.

Until , 2012 (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.

Part II—Information not required in prospectus

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth 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 estimates except the Securities and Exchange Commission registration fee and the Financial Industry Regulatory Authority, Inc. filing fee.

	Amount
Securities and Exchange Commission registration fee	$ 6,524
Financial Industry Regulatory Authority, Inc. filing fee	6,193
NASDAQ listing fee	125,000
Accountants' fees and expenses	500,000
Legal fees and expenses	1,100,000
Blue Sky fees and expenses	5,000
Transfer Agent's fees and expenses	15,000
Printing and engraving expenses	250,000
Miscellaneous	92,283
Total Expenses	$ 2,100,000

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 102 of the Delaware General Corporation Law permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her 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 shall be personally liable to us or our 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 Delaware General Corporation Law prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is party or is threatened to be made a party by reason of such position, if such person acted 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, in any criminal action or proceeding, had no reasonable cause to believe his or her 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 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 indemnification for such expenses which the Court of Chancery or such other court shall deem proper.

Part II—Information not required in prospectus

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 whether civil, criminal, administrative or investigative (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, our 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 also 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, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee or, 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 by him or her or on his or her behalf in connection therewith. If we don't assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with our directors. In general, these agreements provide that we will indemnify the director to the fullest extent permitted by law for claims arising in his or her capacity as a director of our company or in connection with his or her service at our request for another corporation or entity. The indemnification agreements also provide for procedures that will apply in the event that a director makes a claim for indemnification and establish certain presumptions that are favorable to the director.

We maintain a general liability insurance policy which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

The underwriting agreement we will enter into in connection with the offering of common stock being registered hereby provides that the underwriters will indemnify, under certain conditions, our directors and officers (as well as certain other persons) against certain liabilities arising in connection with such offering.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

Set forth below is information regarding shares of common stock and preferred stock issued, and options granted, by us within the past three years that were not registered under the Securities Act of

1933, 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) **Issuances of securities**

In August 2010, we sold an aggregate of 2,857,138 shares of our common stock at a price per share of $0.00035 for an aggregate purchase price of $1,000.

In October 2010 and November 2010, we issued an aggregate of 166,664 shares of common stock to the Whitehead Institute and entities and individuals affiliated with the Whitehead Institute pursuant to the terms of our drug discovery platform license agreement with the Whitehead Institute.

In November 2010, we sold an aggregate of 4,000,000 shares of our series A preferred stock at a price per share of $1.00 for an aggregate purchase price of $4.0 million. In April 2011 we sold an aggregate of 12,000,000 shares of our series A preferred stock at a price per share of $1.00 for an aggregate purchase price of $12 million.

In April 2011, we sold an aggregate of 256,000 shares of our common stock at a price per share of $0.28 for an aggregate purchase price of $71,680.

In July 2011, we sold an aggregate of 16,025,000 shares of our series B preferred stock at a price per share of $2.00 for an aggregate purchase price of $32.0 million.

In November 2011, we sold an aggregate of 9,067,825 shares of our series C preferred stock at a price per share of $2.25 for an aggregate purchase price of $20.4 million.

In November 2011, we agreed to issue a warrant for the purchase of 142,857 shares of our common stock with an exercise price equal to the average closing price of our common stock during the five days preceding the date of issuance to Poniard Pharmaceuticals, Inc. upon achievement of a milestone.

No underwriters were involved in the foregoing sales of securities. The securities described in this section (a) of Item 15 were issued to investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(2) under the Securities Act, including in some cases, Regulation D promulgated thereunder, relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All purchasers of shares of preferred stock described above represented to us in connection with their purchase that they were accredited investors and were acquiring the shares for their own account for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof. The purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

(b) **Stock option and other equity awards**

Since inception, we have issued to certain employees, directors and consultants options to purchase an aggregate of 405,141 shares of common stock as of December 31, 2011, of which, as of December 31, 2011, no options had been exercised or forfeited, and options to purchase 405,141 shares of common stock remained outstanding at a weighted-average exercise price of $0.75 per share.

We have approved awards of restricted stock units, to be granted effective upon the closing of this offering, to various employees for an aggregate of 600,000 shares of our common stock.

The issuance of stock options and the common stock issuable upon the exercise of such options, and the grant of restricted stock units upon the closing of this offering and the issuance of common stock

upon vesting of such restricted stock units, as described in this section (b) of Item 15 were, or will be, issued pursuant to written compensatory plans or arrangements with our employees, directors and consultants, in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 701 promulgated under the Securities Act or the exemption set forth in Section 4(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering. All recipients either received adequate information about us or had access, through employment or other relationships, to such information.

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 had not been registered and the applicable restrictions on transfer.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

The exhibits to the Registration Statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

ITEM 17. UNDERTAKINGS.

(a) The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters 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 Act and is, therefore, unenforceable. In the event that a claim for 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 Act and will be governed by the final adjudication of such issue.

(c) The undersigned registrant 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 of 1933, the registrant has duly caused this Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on this 13th day of January, 2012

VERASTEM, INC.

By: /s/ CHRISTOPH WESTPHAL, M.D., PH.D.

Christoph Westphal, M.D., Ph.D.
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 3 to the Registration Statement has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date
/s/ CHRISTOPH WESTPHAL, M.D., PH.D. Christoph Westphal, M.D., Ph.D.	President, Chief Executive Officer and Director (Principal executive officer)	January 13, 2012
/s/ ROBERT FORRESTER Robert Forrester	Chief Operating Officer (Principal financial and accounting officer)	January 13, 2012
* Richard Aldrich	Director	January 13, 2012
* John K. Clarke	Director	January 13, 2012
* Ansbert Gadicke, M.D.	Director	January 13, 2012

Signatures

Signature	Title	Date
*	Director	January 13, 2012
Stephen Kraus		
*	Director	January 13, 2012
Henri Termeer		

*By: /s/ CHRISTOPH WESTPHAL, M.D., PH.D.

Christoph Westphal, M.D., Ph.D.
Attorney-in-Fact

Exhibit index

Exhibit number	Description of exhibit
1.1	Underwriting Agreement
3.1	Amended and Restated Certificate of Incorporation, as amended, of the Registrant
3.2*	Bylaws of the Registrant
3.3	Restated Certificate of Incorporation of the Registrant to be effective upon the closing of this offering
3.4	Amended and Restated Bylaws of the Registrant to be effective upon the closing of this offering
4.1	Specimen certificate evidencing shares of common stock
4.2*	Second Amended and Restated Investors' Rights Agreement, dated November 1, 2011, by and among the Registrant and the other parties thereto
5.1	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP
10.1*	2010 Equity Incentive Plan
10.2	2012 Incentive Plan
10.3	Form of Incentive Stock Option Agreement under 2012 Incentive Plan
10.4	Form of Nonqualified Stock Option Agreement under 2012 Incentive Plan
10.5	Amended and Restated Employment Agreement between the Registrant and Robert Forrester
10.6	Amended and Restated Employment Agreement between the Registrant and Jonathan Pachter
10.7*	Form of Indemnification Agreement between the Registrant and each director
10.8*	Lease Agreement, dated May 2, 2011, between the Registrant and ARE-MA Region No. 38, LLC
10.9†	Amended and Restated Exclusive Patent License Agreement and Tangible Property Agreement, dated January 11, 2012, by and among the Registrant and the Whitehead Institute for Biomedical Research
10.10†*	Exclusive Patent License Agreement, dated December 16, 2011, by and among the Registrant and the Whitehead Institute for Biomedical Research
10.11†*	Letter Agreement, dated October 1, 2010, between the Registrant and the Broad Institute
10.12*	Letter Agreement, dated July 30, 2010, as amended October 18, 2010, between the Registrant and Piyush Gupta, Ph.D.
10.13*	Letter Agreement, dated August 20, 2010, between the Registrant and Eric Lander, Ph.D.
10.14*	Letter Agreement, dated July 30, 2010, as amended October 18, 2010, between the Registrant and Robert Weinberg, Ph.D.
10.15†*	License Agreement, dated November 17, 2011, between the Registrant and Poniard Pharmaceuticals, Inc.
10.16	Form of Restricted Stock Unit Agreement under 2012 Incentive Plan
23.1	Consent of Ernst & Young 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)

* *Previously filed.*

† *Confidential treatment requested as to portions of the exhibit. Confidential materials omitted and filed separately with the Securities and Exchange Commission.*

Exhibit 1.1

VERASTEM, INC.

[ ] Shares

Common Stock
($.0001 par value per Share)

UNDERWRITING AGREEMENT

[pricing date]

UNDERWRITING AGREEMENT

[pricing date]

UBS Securities LLC
Leerink Swann LLC
as Managing Underwriters
c/o UBS Securities LLC
299 Park Avenue
New York, New York 10171-0026

Ladies and Gentlemen:

Verastem, Inc., a Delaware corporation (the "Company"), proposes to issue and sell to the underwriters named in Schedule A annexed hereto (the "Underwriters"), for whom you are acting as representatives, an aggregate of [ ] shares (the "Firm Shares") of common stock, $.0001 par value per share (the "Common Stock"), of the Company. In addition, solely for the purpose of covering over-allotments, the Company proposes to grant to the Underwriters the option to purchase from the Company up to an additional [ ] shares of Common Stock (the "Additional Shares"). The Firm Shares and the Additional Shares are hereinafter collectively sometimes referred to as the "Shares." The Shares are described in the Prospectus which is referred to below.

The Company has prepared and filed, in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the "Act"), with the Securities and Exchange Commission (the "Commission") a registration statement on Form S-1 (File No. 333-177677) under the Act, including a prospectus, relating to the Shares.

Except where the context otherwise requires, "Registration Statement," as used herein, means the registration statement, as amended at the time of such registration statement's effectiveness for purposes of Section 11 of the Act, as such section applies to the respective Underwriters (the "Effective Time"), including (i) all documents filed as a part thereof, (ii) any information contained in a prospectus filed with the Commission pursuant to Rule 424(b) under the Act, to the extent such information is deemed, pursuant to Rule 430A or Rule 430C under the Act, to be part of the registration statement at the Effective Time, and (iii) any registration statement filed to register the offer and sale of Shares pursuant to Rule 462(b) under the Act.

The Company has furnished to you, for use by the Underwriters and by dealers in connection with the offering of the Shares, copies of one or more preliminary prospectuses relating to the Shares that include an estimated price range for such Shares. Except where the context otherwise requires, "Preliminary Prospectus," as used herein, means each such preliminary prospectus, in the form so furnished.

Except where the context otherwise requires, "Prospectus," as used herein, means the prospectus, relating to the Shares, filed by the Company with the Commission pursuant to Rule 424(b) under the Act on or before the second business day after the date hereof (or such

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earlier time as may be required under the Act), or, if no such filing is required, the final prospectus included in the Registration Statement at the time it became effective under the Act, in each case in the form furnished by the Company to you for use by the Underwriters and by dealers in connection with the offering of the Shares.

"Permitted Free Writing Prospectuses," as used herein, means the documents listed on Schedule B attached hereto and each "road show" (as defined in Rule 433 under the Act), if any, related to the offering of the Shares contemplated hereby that is a "written communication" (as defined in Rule 405 under the Act) (each such road show, an "Electronic Road Show"). The Underwriters have not offered or sold and will not offer or sell, without the Company's consent, any Shares by means of any "free writing prospectus" (as defined in Rule 405 under the Act) that is required to be filed by the Underwriters with the Commission pursuant to Rule 433 under the Act, other than a Permitted Free Writing Prospectus.

"Covered Free Writing Prospectuses," as used herein, means (i) each "issuer free writing prospectus" (as defined in Rule 433(h)(1) under the Act), if any, relating to the Shares, which is not a Permitted Free Writing Prospectus and (ii) each Permitted Free Writing Prospectus.

"Disclosure Package," as used herein, means the Preliminary Prospectus dated [ ], together with the Permitted Free Writing Prospectuses, if any, identified on Schedule B attached hereto and the other information, if any, identified on Schedule C attached hereto.

"Applicable Time," as used herein, means [ ] [a.m./p.m.], New York City time, on [ ].

As used in this Agreement, "business day" shall mean a day on which the New York Stock Exchange (the "NYSE") is open for trading. The terms "herein," "hereof," "hereto," "hereinafter" and similar terms, as used in this Agreement, shall in each case refer to this Agreement as a whole and not to any particular section, paragraph, sentence or other subdivision of this Agreement. The term "or," as used herein, is not exclusive.

The Company has prepared and filed, in accordance with Section 12 of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (collectively, the "Exchange Act"), a registration statement (as amended, the "Exchange Act Registration Statement") on Form 8-A (File No. 001-[_]) under the Exchange Act to register, under Section 12(b) of the Exchange Act, the class of securities consisting of the Common Stock."

The Company and the Underwriters agree as follows:

1. Sale and Purchase. Upon the basis of the representations and warranties and subject to the terms and conditions herein set forth, the Company agrees to issue and sell to the respective Underwriters and each of the Underwriters, severally and not jointly, agrees to purchase from the Company the number of Firm Shares set forth opposite the name of such Underwriter in Schedule A attached hereto, subject to adjustment in accordance with Section 8

hereof, in each case at a purchase price of $[ ] per Share. The Company is advised by you that the Underwriters intend (i) to make a public offering of their respective portions of the Firm Shares as soon after the effective date of the Registration Statement as in your judgment is advisable and (ii) initially to offer the Firm Shares upon the terms set forth in the Prospectus. You may from time to time increase or decrease the public offering price after the initial public offering to such extent as you may determine.

In addition, the Company hereby grants to the several Underwriters the option (the "Over-Allotment Option") to purchase, and upon the basis of the representations and warranties and subject to the terms and conditions herein set forth, the Underwriters shall have the right to purchase, severally and not jointly, from the Company, ratably in accordance with the number of Firm Shares to be purchased by each of them, all or a portion of the Additional Shares as may be necessary to cover over-allotments made in connection with the offering of the Firm Shares, at the same purchase price per share to be paid by the Underwriters to the Company for the Firm Shares. The Over-Allotment Option may be exercised by UBS Securities LLC ("UBS") and Leerink Swann LLC ("Leerink") on behalf of the several Underwriters at any time and from time to time on or before the thirtieth day following the date of the Prospectus, by written notice to the Company. Such notice shall set forth the aggregate number of Additional Shares as to which the Over-Allotment Option is being exercised and the date and time when the Additional Shares are to be delivered (any such date and time being herein referred to as an "additional time of purchase"); provided, however, that no additional time of purchase shall be earlier than the "time of purchase" (as defined below) nor earlier than the second business day after the date on which the Over-Allotment Option shall have been exercised nor later than the tenth business day after the date on which the Over-Allotment Option shall have been exercised. The number of Additional Shares to be sold to each Underwriter shall be the number which bears the same proportion to the aggregate number of Additional Shares being purchased as the number of Firm Shares set forth opposite the name of such Underwriter on Schedule A hereto bears to the total number of Firm Shares (subject, in each case, to such adjustment as UBS and Leerink may determine to eliminate fractional shares), subject to adjustment in accordance with Section 8 hereof.

2. Payment and Delivery. Payment of the purchase price for the Firm Shares shall be made to the Company by Federal Funds wire transfer against delivery of the certificates for the Firm Shares to you through the facilities of The Depository Trust Company ("DTC") for the respective accounts of the Underwriters. Such payment and delivery shall be made at 10:00 A.M., New York City time, on [closing date] (unless another time shall be agreed to by you and the Company or unless postponed in accordance with the provisions of Section 8 hereof). The time at which such payment and delivery are to be made is hereinafter sometimes called the "time of purchase." Electronic transfer of the Firm Shares shall be made to you at the time of purchase in such names and in such denominations as you shall specify.

Payment of the purchase price for the Additional Shares shall be made at the additional time of purchase in the same manner and at the same office and time of day as the payment for the Firm Shares. Electronic transfer of the Additional Shares shall be made to you at the additional time of purchase in such names and in such denominations as you shall specify.

Deliveries of the documents described in Section 6 hereof with respect to the purchase of the Shares shall be made at the offices of Ropes & Gray LLP at Prudential Tower, 800 Boylston Street, Boston, Massachusetts, at 9:00 A.M., New York City time, on the date of the closing of the purchase of the Firm Shares or the Additional Shares, as the case may be.

3. Representations and Warranties of the Company. The Company represents and warrants to and agrees with each of the Underwriters that:

(a) the Registration Statement has heretofore become effective under the Act or, with respect to any registration statement to be filed to register the offer and sale of Shares pursuant to Rule 462(b) under the Act, will be filed with the Commission and become effective under the Act no later than 10:00 P.M., New York City time, on the date of determination of the public offering price for the Shares; no stop order of the Commission preventing or suspending the use of any Preliminary Prospectus or Permitted Free Writing Prospectus, or the effectiveness of the Registration Statement, has been issued, and no proceedings for such purpose have been instituted or, to the Company's knowledge, are contemplated by the Commission; the Exchange Act Registration Statement has become effective as provided in Section 12 of the Exchange Act;

(b) the Registration Statement complied when it became effective, complies as of the date hereof and, as amended or supplemented, at the time of purchase and each additional time of purchase, if any, will comply, in all material respects, with the requirements of the Act; the Registration Statement did not, as of the Effective Time, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; each Preliminary Prospectus complied, at the time it was filed with the Commission, in all material respects with the requirements of the Act; no Preliminary Prospectus, at the time it was filed with the Commission, included an untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; the Disclosure Package, as of the Applicable Time did not, and as of the time of purchase and each additional time of purchase, if any, will not, include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; the Prospectus will comply, as of its date, the date that it is filed with the Commission, the time of purchase and each additional time of purchase, if any, in all material respects, with the requirements of the Act (including, without limitation, Section 10(a) of the Act); the Prospectus, as of its date, the date that it is filed with the Commission, the time of purchase and each additional time of purchase, if any, will not, as then amended or supplemented, include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; each Permitted Free Writing Prospectus, when considered together with the Preliminary Prospectus accompanying or delivered prior to delivery of such Permitted Free Writing Prospectus, as of its date did not, and as of the time of purchase and each additional time of purchase, if any, will not, include an

untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that the Company makes no representation or warranty in this Section 3(b) with respect to any statement contained in the Registration Statement, any Preliminary Prospectus, the Prospectus or any Permitted Free Writing Prospectus in reliance upon and in conformity with information concerning an Underwriter and furnished in writing by or on behalf of such Underwriter through you to the Company expressly for use in the Registration Statement, such Preliminary Prospectus, the Prospectus or such Permitted Free Writing Prospectus;

(c) prior to the execution of this Agreement, the Company has not, directly or indirectly, offered or sold any Shares by means of any "prospectus" (within the meaning of the Act) or used any "prospectus" (within the meaning of the Act) in connection with the offer or sale of the Shares, in each case other than the Preliminary Prospectuses and the Permitted Free Writing Prospectuses, if any; the Company has not, directly or indirectly, prepared, used or referred to any Permitted Free Writing Prospectus except in compliance with Rules 164 and 433 under the Act; assuming that such Permitted Free Writing Prospectus is accompanied or preceded by the most recent Preliminary Prospectus that contains a price range or the Prospectus, as the case may be, and that such Permitted Free Writing Prospectus is so sent or given after the Registration Statement was filed with the Commission (and after such Permitted Free Writing Prospectus was, if required pursuant to Rule 433(d) under the Act, filed with the Commission), the sending or giving, by any Underwriter, of any Permitted Free Writing Prospectus will satisfy the provisions of Rule 164 and Rule 433 (without reliance on subsections (b), (c) and (d) of Rule 164); the Preliminary Prospectus included in the Disclosure Package is a prospectus that, other than by reason of Rule 433 or Rule 431 under the Act, satisfies the requirements of Section 10 of the Act, including a price range where required by rule; neither the Company nor the Underwriters are disqualified, by reason of subsection (f) or (g) of Rule 164 under the Act, from using, in connection with the offer and sale of the Shares, "free writing prospectuses" (as defined in Rule 405 under the Act) pursuant to Rules 164 and 433 under the Act; the Company is not an "ineligible issuer" (as defined in Rule 405 under the Act) as of the eligibility determination date for purposes of Rules 164 and 433 under the Act with respect to the offering of the Shares contemplated by the Registration Statement, without taking into account any determination by the Commission pursuant to Rule 405 under the Act that it is not necessary under the circumstances that the Company be considered an "ineligible issuer"; the parties hereto agree and understand that the content of any and all "road shows" (as defined in Rule 433 under the Act) related to the offering of the Shares contemplated hereby is solely the property of the Company; the Company has caused there to be made available at least one version of a "*bona fide* electronic road show" (as defined in Rule 433 under the Act) in a manner that, pursuant to Rule 433(d)(8)(ii) under the Act, causes the Company not to be required, pursuant to Rule 433(d) under the Act, to file, with the Commission, any Electronic Road Show;

(d) as of the date of this Agreement, the Company has an authorized and outstanding capitalization as set forth in the sections of the Registration Statement, the

Disclosure Package and the Prospectus entitled "Capitalization" (and any similar section or information, if any, contained in any Permitted Free Writing Prospectus), and, as of the time of purchase and any additional time of purchase, as the case may be, the Company shall have an authorized and outstanding capitalization as set forth in the sections of the Registration Statement, the Disclosure Package and the Prospectus entitled "Capitalization" (and any similar section or information, if any, contained in any Permitted Free Writing Prospectus) (subject, in each case, to the issuance of shares of Common Stock upon exercise of stock options disclosed as outstanding in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus and the grant of awards under stock incentive plans described in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus); all of the issued and outstanding shares of capital stock, including the Common Stock, of the Company have been duly authorized and validly issued and are fully paid and non-assessable, have been issued in compliance with all applicable securities laws and were not issued in violation of any preemptive right, resale right, right of first refusal or similar right; at the time of purchase, all outstanding shares of Series A Preferred Stock, $.0001 par value per share, Series B Preferred Stock, $.0001 par value per share, and Series C Preferred Stock, $.0001 par value per share, of the Company shall convert into shares of Common Stock in the manner described in the Registration Statement (excluding the exhibits thereto), each Preliminary Prospectus and the Prospectus; prior to the date hereof, the Company has duly effected and completed a one-for-3.5 "reverse" stock split of the Common Stock in the manner described in the Registration Statement (excluding the exhibits thereto), each Preliminary Prospectus and the Prospectus; and the "Restated Certificate of Incorporation" of the Company and the "Amended and Restated Bylaws" of the Company, each in the form filed as an exhibit to the Registration Statement, have been heretofore duly authorized and approved in accordance with the Delaware General Corporation Law and shall become effective and in full force and effect at or immediately following the time of purchase; the Shares are duly listed, and admitted and authorized for trading, subject to official notice of issuance and evidence of satisfactory distribution, on The NASDAQ Global Market (the "NASDAQ");

(e) the Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware, with full corporate power and authority to own, lease and operate its properties and conduct its business as described in the Registration Statement, the Disclosure Package and the Prospectus , to execute and deliver this Agreement and to issue, sell and deliver the Shares as contemplated herein;

(f) the Company is duly qualified to do business as a foreign corporation and is in good standing in the Commonwealth of Massachusetts, which is the only jurisdiction where the ownership or leasing of its properties or the conduct of its business requires such qualification, except to the extent the failure to be so qualified and in good standing does not, individually or in the aggregate, either (i) have a material adverse effect on the business, properties, financial condition, results of operations or prospects of the Company, (ii) prevent or materially interfere with consummation of the transactions

contemplated hereby or (iii) prevent the shares of Common Stock from being accepted for listing on, or result in the delisting of shares of Common Stock from the NASDAQ (the occurrence of any such effect or any such prevention or interference or any such result described in the foregoing clauses (i), (ii) and (iii) being herein referred to as a "Material Adverse Effect")";

(g) the Company has no subsidiaries (as defined under the Act); the Company does not own, directly or indirectly, any shares of stock or any other equity interests or long-term debt securities of any corporation, firm, partnership, joint venture, association or other entity; complete and correct copies of the charter and the bylaws of the Company and all amendments thereto have been made available to you, and, except as set forth in the exhibits to the Registration Statement, no changes therein will be made on or after the date hereof through and including the time of purchase or, if later, any additional time of purchase;

(h) the Shares have been duly and validly authorized and, when issued and delivered against payment therefor as provided herein, will be duly and validly issued, fully paid and non-assessable and free of statutory and contractual preemptive rights, resale rights, rights of first refusal and similar rights; the Shares, when issued and delivered against payment therefor as provided herein, will be free of any restriction upon the voting or transfer thereof pursuant to the Delaware General Corporation Law or the Company's charter or bylaws or any agreement or other instrument to which the Company is a party;

(i) the capital stock of the Company, including the Shares, conforms in all material respects to each description thereof, if any, contained in the Registration Statement, the Disclosure Package and the Prospectus;

(j) this Agreement has been duly authorized, executed and delivered by the Company;

(k) the Company is not in breach or violation of or in default under (nor has any event occurred which, with notice, lapse of time or both, would result in any breach or violation of, constitute a default under or give the holder of any indebtedness (or a person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a part of such indebtedness under) (A) its charter or bylaws, or (B) any indenture, mortgage, deed of trust, bank loan or credit agreement or other evidence of indebtedness, or any license, lease, contract or other agreement or instrument to which it is a party or by which it or any of its properties may be bound or affected, or (C) any applicable federal, state, local or foreign law, regulation or rule, or (D) any applicable rule or regulation of any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, the rules and regulations of the

NASDAQ), or (E) any decree, judgment or order applicable to it or any of its properties, except, in the case of the foregoing clauses (B), (C), (D) and (E), for any such breach, violation, default or event that would not, individually or in the aggregate, have a Material Adverse Effect;

(l) the execution, delivery and performance of this Agreement, the issuance and sale of the Shares and the consummation of the transactions contemplated hereby will not conflict with, result in any breach or violation of or constitute a default under (nor constitute any event which, with notice, lapse of time or both, would result in any breach or violation of, constitute a default under or give the holder of any indebtedness (or a person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a part of such indebtedness under) (or result in the creation or imposition of a lien, charge or encumbrance on any property or assets of the Company pursuant to) (A) the charter or bylaws of the Company, or (B) any indenture, mortgage, deed of trust, bank loan or credit agreement or other evidence of indebtedness, or any license, lease, contract or other agreement or instrument to which the Company is a party or by which it or any its properties may be bound or affected, or (C) any applicable federal, state, local or foreign law, regulation or rule, or (D) any applicable rule or regulation of any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, the rules and regulations of the NASDAQ), or (E) any decree, judgment or order applicable to the Company or any of its properties, except, in the case of the foregoing clauses (B), (C), (D) and (E), for any such conflict, breach, violation, default or event that would not, individually or in the aggregate, have a Material Adverse Effect;

(m) no approval, authorization, consent or order of or filing with any federal, state, local or foreign governmental or regulatory commission, board, body, authority or agency, or of or with any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, the NASDAQ), having jurisdiction over the Company, or approval of the stockholders of the Company, is required in connection with the issuance and sale of the Shares or the consummation by the Company of the transactions contemplated hereby, except as have already been obtained or made as of the date of this Agreement, other than (i) registration of the Shares under the Act, which has been effected (or, with respect to any registration statement to be filed hereunder pursuant to Rule 462(b) under the Act, will be effected in accordance herewith), (ii) any necessary qualification under the securities or blue sky laws of the various jurisdictions in which the Shares are being offered by the Underwriters or (iii) under the Conduct Rules of the Financial Industry Regulatory Authority, Inc. ("FINRA");

(n) except as described in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus, (i) no person has the right, contractual or otherwise, to cause the Company to issue or sell to it any shares of Common Stock or shares of any other capital stock or other equity interests of the Company, (ii) no person has any preemptive rights, resale rights, rights of first refusal or other rights to purchase any shares of Common Stock or shares of any other capital stock of or other equity interests in the Company and (iii) no person has the right to act as an underwriter or as a financial advisor to the Company in connection with the offer and sale of the Shares, except, in each case, any such rights that have been validly waived in writing as of the date of this Agreement, copies of such waivers to have been made available to you; no person has the right, contractual or otherwise, to cause the Company

to register under the Act any shares of Common Stock or shares of any other capital stock of or other equity interests in the Company, or to include any such shares or interests in the Registration Statement or the offering contemplated thereby, except any such right that has been validly waived in writing as of the date of this Agreement, copies of such waivers to have been made available to you;

(o) the Company has all necessary licenses, authorizations, consents and approvals and has made all necessary filings required under any applicable law, regulation or rule, and has obtained all necessary licenses, authorizations, consents and approvals from other persons, in order to conduct its businesses, except where the failure to have, make or obtain the same would not, individually or in the aggregate, have a Material Adverse Effect; the Company is not in violation of, or in default under, and has not received notice of any proceedings relating to revocation or modification of, any such license, authorization, consent or approval or any federal, state, local or foreign law, regulation or rule or any decree, order or judgment applicable to the Company, except where such violation, default, revocation or modification would not, individually or in the aggregate, have a Material Adverse Effect;

(p) there are no actions, suits, claims, investigations or proceedings pending to which the Company or, to the Company's knowledge, any of its directors or officers is or would be a party or of which any of its properties is or would be subject at law or in equity, before or by any federal, state, local or foreign governmental or regulatory commission, board, body, authority or agency, or before or by any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, the NASDAQ), except any such action, suit, claim, investigation or proceeding which would not, individually or in the aggregate, have a Material Adverse Effect (assuming, with respect to any such action, suit, claim, investigation or proceeding to which the Company is a party, that such action, suit, claim, investigation or proceeding was resolved adversely to the Company); and, to the Company's knowledge, no such actions, suits, claims, investigations or proceedings are threatened or contemplated;

(q) Ernst & Young LLP, whose report on the financial statements of the Company is included in the Registration Statement, the Disclosure Package and the Prospectus , are independent registered public accountants as required by the Act and by the rules of the Public Company Accounting Oversight Board;

(r) the financial statements included in the Registration Statement, the Disclosure Package and the Prospectus , together with the related notes and schedules, present fairly the financial position of the Company as of the dates indicated and the results of operations, cash flows and changes in stockholders' equity of the Company for the periods specified and have been prepared in compliance in all material respects with the requirements of the Act and Exchange Act and in conformity with U.S. generally accepted accounting principles applied on a consistent basis during the periods involved, except as otherwise disclosed therein and, in the case of unaudited, interim financial statements, subject to normal year-end audit adjustments and the exclusion of certain footnotes; all pro forma financial data included in the Registration Statement, the

Disclosure Package and the Prospectus comply in all material respects with the requirements of the Act and the Exchange Act, to the extent applicable, and the assumptions used in the preparation of such pro forma financial data are reasonable, the pro forma adjustments used therein are appropriate to give effect to the transactions or circumstances described therein and the pro forma adjustments have been properly applied to the historical amounts in the compilation of such data; the other financial data contained in the Registration Statement, the Disclosure Package and the Prospectus are accurately and fairly presented in all material respects and prepared on a basis consistent with the financial statements and books and records of the Company; there are no financial statements (historical or pro forma) that are required to be included in the Registration Statement, the Disclosure Package or the Prospectus that are not included as required; the Company does not have any material liabilities or obligations, direct or contingent (including any off-balance sheet obligations), not described in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus;

(s) except as disclosed in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus, each stock option granted under any stock incentive plan of the Company (each, a "Stock Plan") was granted with a per share exercise price no less than the fair market value per share of Common Stock on the grant date of such option, and no such grant involved any "back-dating" or similar practice with respect to the effective date of

such grant; except as would not, individually or in the aggregate, have a Material Adverse Effect, each such option (i) was granted in compliance with applicable law and with the applicable Stock Plan(s), (ii) was duly approved by the board of directors (or a duly authorized committee thereof) of the Company, and (iii) has been properly accounted for in the Company's financial statements in accordance with U.S. generally accepted accounting principles and disclosed in the Company's filings with the Commission;

(t) subsequent to the respective dates as of which information is given in the Registration Statement, the Disclosure Package and the Prospectus, in each case excluding any amendments or supplements to the foregoing made after the execution of this Agreement, there has not been (i) any material adverse change, or any development that would reasonably be expected to result in a material adverse change, in the business, properties, management, financial condition or results of operations of the Company, (ii) any transaction to which the Company is a party which is material to the Company, (iii) any obligation or liability, direct or contingent (including any off-balance sheet obligations), incurred by the Company, which is material to the Company, (iv) any change in the capital stock or outstanding indebtedness of the Company (other than the issuance of shares of Common Stock upon exercise of stock options disclosed as outstanding in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus and the grant of awards under stock incentive plans described in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus, in each case in the ordinary course of business) or (v) any dividend or distribution of any kind declared, paid or made on the capital stock of the Company;

(u) the Company has obtained for the benefit of the Underwriters the

agreement (a "Lock-Up Agreement"), in the form set forth as Exhibit A hereto, of (i) each of its directors and "officers" (within the meaning of Rule 16a-1(f) under the Exchange Act) and (ii) [each holder] of shares of Common Stock or any security convertible into or exercisable or exchangeable for shares of Common Stock or any warrant or other right to acquire shares of Common Stock or any such security;

(v) the Company is not, and at no time during which a prospectus is required by the Act to be delivered (whether physically or through compliance with Rule 172 under the Act or any similar rule) in connection with any sale of Shares will it be, and, after giving effect to the offering and sale of the Shares and the application of the proceeds thereof, it will not be, an "investment company" or an entity "controlled" by an "investment company," as such terms are defined in the Investment Company Act of 1940, as amended (the "Investment Company Act");

(w) the Company has good title to all personal property described in the Registration Statement, the Disclosure Package and the Prospectus as being owned by it, free and clear of all liens, claims, security interests or other encumbrances, except those that do not materially interfere with the use or proposed use of such property by the Company or as would not materially or adversely affect the value of such property; the Company does not own any real property; all the real property described in the Registration Statement, the Disclosure Package and the Prospectus as being held under lease by the Company is held thereby under valid, subsisting and enforceable leases;

(x) except (A) as described in the Registration Statement, the Disclosure Package and the Prospectus or (B) as would not, individually or in the aggregate, have a Material Adverse Effect, (i) the Company owns, or has obtained valid and enforceable licenses for, or other rights to use, the inventions, patent applications, patents, trademarks (both registered and unregistered), tradenames, service names, copyrights, trade secrets and other proprietary information described in the Registration Statement, the Disclosure Package and the Prospectus as being owned or licensed by it or which are necessary for the conduct of its business as currently conducted or as proposed to be conducted (including the commercialization of products or services described in the Registration Statement, the Disclosure Package and the Prospectus as under development), except where the failure to own, license or have such rights would not, individually or in the aggregate, have a Material Adverse Effect (collectively, "Intellectual Property"), except as enforceability may be limited by bankruptcy, insolvency or similar laws affecting the rights of creditors generally and general equitable principles; (ii) there are no third parties who have rights or, to the Company's knowledge, will be able to establish rights to use any Intellectual Property that is owned by the Company, other than any co-owner of any patent or patent application constituting Intellectual Property who is listed as such on the records of the U.S. Patent and Trademark Office (the "PTO"), and, to the Company's knowledge, no third party has any ownership right in or to any Intellectual Property in any field of use that is exclusively licensed to the Company, except for, and to the extent of, the ownership rights of the owners of the Intellectual Property which the Registration

Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus disclose is licensed to the Company; (iii) to the Company's knowledge, there is no infringement by third parties of any Intellectual Property; (iv) the Company has not received any notice from, and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by, others challenging the Company's rights in or to any Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim; (v) the Company has not received any notice from, and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by, others challenging the validity, enforceability or scope of any Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim; (vi) the Company has not received any notice from, and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by, others that the Company infringes or otherwise violates, or would, upon the commercialization of any product or service described in the Registration Statement, the Disclosure Package and the Prospectus as under development, infringe or violate, any patent, trademark, tradename, service name, copyright, trade secret or other proprietary rights of others, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim; (vii) the Company has complied with the applicable terms of each agreement pursuant to which Intellectual Property has been licensed to the Company, and all such agreements are in full force and effect; (viii) to Company's knowledge, there is no patent or patent application that contains claims that infringe the issued or pending claims of any of the Intellectual Property or that challenges the validity, enforceability or scope of any of the Intellectual Property; (ix) the manufacture, use and sale of the product candidates described in the Registration Statement, the Disclosure Package and the Prospectus as under development by the Company fall within the scope of the claims of one or more patents or patent applications owned by, or exclusively licensed to, the Company; and (x) the Company has complied and, to the Company's knowledge, each of its licensors has complied, with its duty of candor and disclosure to the PTO with respect to all patent applications owned or exclusively licensed to the Company and included in the Intellectual Property and filed with the PTO;

(y) the Company is not engaged in any unfair labor practice; except for matters which would not, individually or in the aggregate, have a Material Adverse Effect, (i) there is (A) no unfair labor practice complaint pending or, to the Company's knowledge, threatened against the Company before the National Labor Relations Board, and no grievance or arbitration proceeding arising out of or under collective bargaining agreements is pending or, to the Company's knowledge, threatened, (B) no strike, labor dispute, slowdown or stoppage pending or, to the Company's knowledge, threatened against the Company and (C) no union representation dispute currently existing concerning the employees of the Company, (ii) to the Company's knowledge, no union organizing activities are currently taking place concerning the employees of the Company and (iii) there has been no violation of any federal, state, local or foreign law relating to discrimination in the hiring, promotion or pay of employees, any applicable wage or hour laws or any provision of the Employee Retirement Income Security Act of 1974, as

amended, or the rules and regulations promulgated thereunder concerning the employees of the Company;

(z) the Company and its properties, assets and operations are in compliance with, and the Company holds all permits, authorizations and approvals required under, Environmental Laws (as defined below), except to the extent that failure to so comply or to hold such permits, authorizations or approvals would not, individually or in the aggregate, have a Material Adverse Effect; there are no past, present or, to the Company's knowledge, reasonably anticipated future events, conditions, circumstances, activities, practices, actions, omissions or plans that would reasonably be expected to give rise to any material costs or liabilities to the Company under, or to interfere with or prevent compliance by the Company with, Environmental Laws; except as would not, individually or in the aggregate, have a Material Adverse Effect; the Company (i) is not the subject of any investigation, (ii) has not received any notice or claim, (iii) is not a party to or affected by any pending or, to the Company's knowledge, threatened action, suit or proceeding, (iv) is not bound by any judgment, decree or order or (v) has not entered into any agreement, in each case relating to any alleged violation of any Environmental Law or any actual or alleged release or threatened release or cleanup at any location of any Hazardous Materials (as defined below) (as used herein, "Environmental Law" means any federal, state, local or foreign law, statute, ordinance, rule, regulation, order, decree, judgment, injunction, permit, license, authorization or other binding requirement, or common law, relating to health, safety or the protection, cleanup or restoration of the environment or natural resources, including those relating to the distribution, processing, generation, treatment, storage, disposal, transportation, other handling or release or threatened release of Hazardous Materials, and "Hazardous Materials" means any material (including, without limitation, pollutants, contaminants, hazardous or toxic substances or wastes) that is regulated by or may give rise to liability under any Environmental Law);

(aa) all tax returns required to be filed by the Company have been timely filed, and all taxes and other assessments of a similar nature (whether imposed directly or through withholding) including any interest, additions to tax or penalties applicable thereto due or claimed to be due from the Company have been timely paid, other than those being contested in good faith and for which adequate reserves have been provided, except to the extent failure to file such return or make such payments would not, individually or in the aggregate, have a Material Adverse Effect;

(bb) except as described in the Registration Statement, the Disclosure Package and the Prospectus, the Company maintains insurance covering its properties, operations, personnel and businesses as the Company reasonably deems adequate to insure against such losses and risks in accordance with customary industry practice to protect the Company and its business; all such insurance is fully in force on the date hereof and will be fully in force at the time of purchase and each additional time of purchase, if any; the Company has no reason to believe that it will not be able to renew any such insurance as and when such insurance expires or to obtain similar coverage at reasonable cost from similar insurers;

(cc) the Company has not sent any communication or received any written communication regarding termination of, or intent not to renew, any of the contracts or agreements referred to or described in the Disclosure Package or the Prospectus , or referred to or described in, or filed as an exhibit to, the Registration Statement, and no such termination or non-renewal has been threatened by the Company or, to the Company's knowledge, threatened in writing by any other party to any such contract or agreement;

(dd) the Company has established and maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences;

(ee) the Company has established and maintains "disclosure controls and procedures" (as such term is defined in Rule 13a-15 and 15d-15 under the Exchange Act) and "internal control over financial reporting" (as such term is defined in Rule 13a-15 and 15d-15 under the Exchange Act); such disclosure controls and procedures are designed to ensure that material information relating to the Company is made known to the Company's Chief Executive Officer and its Chief Operating Officer by others within the Company, and such disclosure controls and procedures are effective to perform the functions for which they were established; the Company's independent registered public accountants and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies, if any, in the design or operation of internal controls which could adversely affect the Company's ability to record, process, summarize and report financial data; and (ii) all fraud, if any, whether or not material, that involves management or other employees who have a role in the Company's internal controls; all "significant deficiencies" and "material weaknesses" (as such terms are defined in Rule 1-02(a)(4) of Regulation S-X under the Act) of the Company, if any, have been identified to the Company's independent registered public accountants and are disclosed in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus; and the Company has taken all necessary actions to ensure that, upon and at all times after the filing of the Registration Statement, the Company and its officers and directors, in their capacities as such, will be in compliance in all material respects with the applicable provisions of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act") and the rules and regulations promulgated thereunder;

(ff) each "forward-looking statement" (within the meaning of Section 27A of the Act or Section 21E of the Exchange Act) contained in the Registration Statement, the Disclosure Package and the Prospectus has been made or reaffirmed with a reasonable basis and in good faith;

(gg) all statistical or market-related data included in the Registration Statement, the Disclosure Package and the Prospectus are based on or derived from sources that the Company reasonably believes to be reliable and accurate, and the Company has obtained the written consent to the use of such data from such sources to the extent required;

(hh) neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company has taken any action, directly or indirectly, while acting on behalf of the Company, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the "Foreign Corrupt Practices Act"); the Company is not aware of any such action, directly or indirectly, having been taken on behalf of the Company; and the Company and, to the knowledge of the Company, its affiliates have instituted and maintain policies and procedures designed to ensure continued compliance therewith;

(ii) the operations of the Company are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Money Laundering Laws"); and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator or non-governmental authority involving the Company with respect to the Money Laundering Laws is pending or, to the Company's knowledge, threatened;

(jj) neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"); and the Company will not directly or indirectly use the proceeds of the offering of the Shares contemplated hereby, or lend, contribute or otherwise make available such proceeds to any joint venture partner or other person or entity for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC;

(kk) the preclinical tests that are described in, or the results of which are referred to in, the Registration Statement, the Disclosure Package and the Prospectus were and, if still pending, are being conducted in all material respects in accordance with standard accepted medical and scientific research procedures for products or product candidates comparable to those being developed by the Company; the descriptions of the results of such tests contained in the Registration Statement, the Disclosure Package and the Prospectus are accurate and complete in all material respects and fairly present the data derived from such tests, and the Company has no knowledge of any other studies or tests not described in the Registration Statement, the Disclosure Package and the Prospectus the results of which reasonably call into question the results described or referred to in the Registration Statement, the Disclosure Package and the Prospectus; the Company has not received any notices or other correspondence from the Food and Drug

Administration of the U.S. Department of Health and Human Services or any committee thereof or from any other U.S. or foreign government or drug or medical device regulatory agency (collectively, the "Regulatory Agencies") requiring the termination, suspension or material modification of any tests that are described or referred to in the Registration Statement, the Disclosure Package and the Prospectus; and the Company has operated and currently is in compliance in all material respects with all applicable rules, regulations and policies of the Regulatory Agencies;

(ll) the issuance and sale of the Shares as contemplated hereby will not cause any holder of any shares of capital stock, securities convertible into or exchangeable or exercisable for capital stock or options, warrants or other rights to purchase capital stock or any other securities of the Company to have any right to acquire any shares of preferred stock of the Company;

(mm) except pursuant to this Agreement, the Company has not incurred any liability for any finder's or broker's fee or agent's commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby or by the Registration Statement;

(nn) neither the Company nor any of its directors, officers, affiliates or controlling persons has taken, directly or indirectly, without giving effect to activities by the Underwriters, any action designed, or which has constituted or might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares; and

(oo) to the Company's knowledge, there are no affiliations or associations between (i) any member of FINRA and (ii) the Company or any of the Company's officers, directors or 5% or greater security holders or any beneficial owner of the Company's unregistered equity securities that were acquired at any time on or after the 180th day immediately preceding the date the Registration Statement was initially filed with the Commission, except as disclosed in writing to UBS and Leerink or disclosed in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus.

In addition, any certificate signed by any officer of the Company and delivered to any Underwriter or counsel for the Underwriters in connection with the offering of the Shares shall be deemed to be a representation and warranty by the Company, as to matters covered thereby, to each Underwriter.

4. Certain Covenants of the Company. The Company hereby agrees:

(a) to furnish such information as may be required and otherwise to cooperate in qualifying the Shares for offering and sale under the securities or blue sky laws of such states or other jurisdictions as you may reasonably designate and to maintain such qualifications in effect so long as you may reasonably request for the distribution of the Shares; provided, however, that the Company shall not be required to qualify as a foreign

corporation, to subject itself to taxation in any foreign jurisdiction or to consent to the service of process under the laws of any such jurisdiction (except service of process with respect to the offering and sale of the Shares); and to promptly advise you of the receipt by the Company of any notification with respect to the suspension of the qualification of the Shares for offer or sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose;

(b) to make available to the Underwriters in New York City, as soon as practicable after this Agreement becomes effective, and thereafter from time to time to furnish to the Underwriters, as many copies of the Prospectus (or of the Prospectus as amended or supplemented if the Company shall have made any amendments or supplements thereto after the effective date of the Registration Statement) as the Underwriters may reasonably request for the purposes contemplated by the Act; in case any Underwriter is required to deliver (whether physically or through compliance with Rule 172 under the Act or any similar rule), in connection with the sale of the Shares, a prospectus after the nine-month period referred to in Section 10(a)(3) of the Act, the Company will prepare, at its expense, promptly upon request such amendment or amendments to the Registration Statement and the Prospectus as may be necessary to permit compliance with the requirements of Section 10(a)(3) of the Act;

(c) if, at the time this Agreement is executed and delivered, it is necessary or appropriate for a post-effective amendment to the Registration Statement, or a Registration Statement under Rule 462(b) under the Act, to be filed with the Commission and become effective before the Shares may be sold, the Company will use its reasonable best efforts to cause such post-effective amendment or such Registration Statement to be filed and become effective, and will pay any applicable fees in accordance with the Act, as soon as possible; and the Company will advise you promptly and, if requested by you, will confirm such advice in writing, (i) when such post-effective amendment or such Registration Statement has become effective, and (ii) if Rule 430A under the Act is used, when the Prospectus is filed with the Commission pursuant to Rule 424(b) under the Act (which the Company agrees to file in a timely manner in accordance with such Rules);

(d) to advise you promptly, confirming such advice in writing, of any request by the Commission for amendments or supplements to the Registration Statement or the Exchange Act Registration Statement, any Preliminary Prospectus, the Prospectus or any Permitted Free Writing Prospectus or for additional information with respect thereto, or of notice of institution of proceedings for, or the entry of a stop order, suspending the effectiveness of the Registration Statement and, if the Commission should enter a stop order suspending the effectiveness of the Registration Statement, to use its reasonable best efforts to obtain the lifting or removal of such order as soon as possible; to advise you promptly of any proposal to amend or supplement the Registration Statement or the Exchange Act Registration Statement, any Preliminary Prospectus or the Prospectus, and to provide you and Underwriters' counsel copies of any such documents for review and comment a reasonable amount of time prior to any proposed filing and to file no such amendment or supplement to which you shall object in writing;

(e) subject to Section 4(d) hereof, to file promptly all reports and documents and any preliminary or definitive proxy or information statement required to be filed by the Company with the Commission in order to comply with the Exchange Act for so long as a prospectus is required by the Act to be delivered (whether physically or through compliance with Rule 172 under the Act or any similar rule) in connection with any sale of Shares; and to provide you, for your review and comment, with a copy of such reports and statements and other documents to be filed by the Company pursuant to Section 13, 14 or 15(d) of the Exchange Act during such period a reasonable amount of time prior to any proposed filing; and to promptly notify you of such filing;

(f) to advise the Underwriters promptly of the happening of any event within the period during which a prospectus is required by the Act to be delivered (whether physically or through compliance with Rule 172 under the Act or any similar rule) in connection with any sale of Shares, which event could require the making of any change in the Prospectus then being used so that the Prospectus would not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading, and to advise the Underwriters promptly if, during such period, it shall become necessary to amend or supplement the Prospectus to cause the Prospectus to comply with the requirements of the Act, and, in each case, during such time, subject to Section 4(d) hereof, to prepare and furnish, at the Company's expense, to the Underwriters promptly such amendments or supplements to such Prospectus as may be necessary to reflect any such change or to effect such compliance;

(g) to make generally available to its security holders, and to deliver to you, an earnings statement of the Company (which will satisfy the provisions of Section 11(a) of the Act) covering a period of twelve months beginning after the effective date of the Registration Statement (as defined in Rule 158(c) under the Act) as soon as is reasonably practicable after the termination of such twelve-month period but in any case not later than May [ ], 2013.

(h) to furnish to you three copies of the Registration Statement, as initially filed with the Commission, and of all amendments thereto (including all exhibits thereto) and sufficient copies of the foregoing (other than exhibits) for distribution of a copy to each of the other Underwriters;

(i) to furnish to you as early as reasonably practicable prior to the time of purchase and any additional time of purchase, as the case may be, but not later than two business days prior thereto, a copy of the latest available unaudited interim and monthly financial statements, if any, of the Company which have been read by the Company's independent registered public accountants, as stated in their letter to be furnished pursuant to Section 6(c) hereof;

(j) to apply the net proceeds from the sale of the Shares in the manner set forth under the caption "Use of proceeds" in the Prospectus and to file such reports with the Commission with respect to the sale of the Shares and the application of the proceeds

therefrom as may be required by Rule 463 under the Act;

(k) to pay all costs, expenses, fees and taxes in connection with (i) the preparation and filing of the Registration Statement, each Preliminary Prospectus, the Prospectus, each Permitted Free Writing Prospectus and any amendments or supplements thereto, and the printing and furnishing of copies of each thereof to the Underwriters and to dealers (including costs of mailing and shipment), (ii) the registration, issue, sale and delivery of the Shares including any stock or transfer taxes and stamp or similar duties payable upon the sale, issuance or delivery of the Shares to the Underwriters, (iii) the producing, word processing and/or printing of this Agreement, any Agreement Among Underwriters, any dealer agreements, and any closing documents (including compilations thereof by the Company or its counsel) and the reproduction and/or printing and furnishing of copies of each thereof to the Underwriters and (except closing documents) to dealers (including costs of mailing and shipment), (iv) the qualification of the Shares for offering and sale under state or foreign laws and the determination of their eligibility for investment under state or foreign law (including the reasonable legal fees and filing fees and other disbursements of counsel for the Underwriters) and the printing and furnishing of copies of any blue sky surveys or legal investment surveys to the Underwriters and to dealers, (v) any listing of the Shares on any securities exchange or qualification of the Shares for listing on the NASDAQ and any registration thereof under the Exchange Act, (vi) any filing for review of the public offering of the Shares by FINRA, including the reasonable legal fees and filing fees and other disbursements of counsel to the Underwriters relating to FINRA matters, (vii) the fees and disbursements of any transfer agent or registrar for the Shares, (viii) the costs and expenses of the Company relating to presentations or meetings undertaken in connection with the marketing of the offering and sale of the Shares to prospective investors and the Underwriters' sales forces, including, without limitation, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged by the Company or by the Underwriters with the Company's consent in connection with the road show presentations, travel, lodging and other expenses incurred by the officers of the Company and any such consultants, provided that the cost of any aircraft chartered in connection with the road show shall be shared equally between the Underwriters and the Company, (ix) the costs and expenses of qualifying the Shares for inclusion in the book-entry settlement system of the DTC, (x) the preparation and filing of the Exchange Act Registration Statement, including any amendments thereto and (xi) the performance of the Company's other obligations hereunder;

(l) to comply with Rule 433(d) under the Act (without reliance on Rule 164(b) under the Act) and with Rule 433(g) under the Act;

(m) beginning on the date hereof and ending on, and including, the date that is 180 days after the date of the Prospectus (the "Lock-Up Period"), without the prior written consent of UBS and Leerink, not to (i) issue, sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, directly or indirectly, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the

Exchange Act and the rules and regulations of the Commission promulgated thereunder, with respect to, any Common Stock or any other securities of the Company that are substantially similar to Common Stock, or any securities convertible into or exchangeable or exercisable for, or any warrants or other rights to purchase, the foregoing, (ii) file or cause to become effective a registration statement under the Act relating to the offer and sale of any Common Stock or any other securities of the Company that are substantially similar to Common Stock, or any securities convertible into or exchangeable or exercisable for, or any warrants or other rights to purchase, the foregoing, (iii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of Common Stock or any other securities of the Company that are substantially similar to Common Stock, or any securities convertible into or exchangeable or exercisable for, or any warrants or other rights to purchase, the foregoing, whether any such transaction is to be settled by delivery of Common Stock or such other securities, in cash or otherwise or (iv) publicly announce an intention to effect any transaction specified in clause (i), (ii) or (iii), except, in each case, for (A) the registration of the offer and sale of the Shares as contemplated by this Agreement, (B) issuances of Common Stock upon (i) the exercise of options or warrants, or (ii) pursuant to restricted stock units, in each case disclosed as outstanding in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus, (C) the grant of awards under stock incentive plans described in the Registration Statement (excluding the exhibits thereto), the Disclosure Package and the Prospectus, provided that each recipient thereof who receives a grant of an award that is exercisable during the Lock-Up Period signs a Lock-Up Agreement in the form referred to in Section 3(u) hereof, (D) the filing by the Company of any registration statement on Form S-8 or a successor form thereto and (E) issuances of Common Stock or other securities in connection with a transaction that includes a commercial relationship (including joint ventures, marketing or distribution arrangements, collaboration agreements or intellectual property license

agreements) or any acquisition of assets or at least a controlling portion of the equity of another entity, provided that (x) the aggregate number of shares or securities issued pursuant to this clause (E) shall not exceed 5.0% of the total number of outstanding shares of Common Stock immediately following the issuance and sale of the Firm Shares pursuant hereto and (y) the holder of such shares or securities shall sign a Lock-Up Agreement in the form referred to in Section 3(u) hereof; provided, however, that if (a) during the period that begins on the date that is fifteen (15) calendar days plus three (3) business days before the last day of the Lock-Up Period and ends on the last day of the Lock-Up Period, the Company issues an earnings release or material news or a material event relating to the Company occurs; or (b) prior to the expiration of the Lock-Up Period, the Company announces that it will release earnings results during the sixteen (16) day period beginning on the last day of the Lock-Up Period, then the restrictions imposed by this Section 4(m) shall continue to apply until the expiration of the date that is fifteen (15) calendar days plus three (3) business days after the date on which the issuance of the earnings release or the material news or material event occurs; if UBS and Leerink, in their sole discretion, agree to release or waive the restrictions set forth in a Lock-Up Agreement described in Section 3(u) hereof for an officer or director of the Company and provides the Company with notice of the impending release or waiver at least three business days before the effective date of the release or waiver, the Company

agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit [ ] hereto through a major news service at least two business days before the effective date of the release or waiver;

(n) prior to the time of purchase or any additional time of purchase, as the case may be, to issue no press release or other communication directly or indirectly and hold no press conferences with respect to the Company, the financial condition, results of operations, business, properties, assets, or liabilities of the Company, or the offering of the Shares, without your prior consent (such consent not to be unreasonably withheld), except as required by applicable law;

(o) not, at any time at or after the execution of this Agreement, to, directly or indirectly, offer or sell any Shares by means of any "prospectus" (within the meaning of the Act), or use any "prospectus" (within the meaning of the Act) in connection with the offer or sale of the Shares, in each case other than the Prospectus;

(p) not to take, directly or indirectly, without giving effect to activities by the Underwriters, any action designed, or which will constitute, or has constituted, or might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares;

(q) to use its best efforts to cause the Shares to be listed on the NASDAQ and to maintain such listing on the NASDAQ; and

(r) to maintain a transfer agent and, if necessary under the jurisdiction of incorporation of the Company, a registrar for the Common Stock.

5. Reimbursement of the Underwriters' Expenses. If, after the execution and delivery of this Agreement, the Shares are not delivered for any reason other than the termination of this Agreement pursuant to the fifth paragraph of Section 8 hereof or the default by one or more of the Underwriters in its or their respective obligations hereunder, the Company shall, in addition to paying the amounts described in Section 4(k) hereof, reimburse the Underwriters for all of their out-of-pocket expenses, including the fees and disbursements of their counsel, reasonably incurred by the Underwriters in connection with the offering of the Shares and the other transactions contemplated hereby.

6. Conditions of the Underwriters' Obligations. The several obligations of the Underwriters hereunder are subject to the accuracy of the representations and warranties on the part of the Company on the date hereof, at the time of purchase and, if applicable, at the additional time of purchase, the performance by the Company of its obligations hereunder and to the following additional conditions precedent:

(a) The Company shall furnish to you at the time of purchase and, if applicable, at the additional time of purchase, an opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel for the Company, addressed to the Underwriters, and dated the time of purchase or the additional time of purchase, as the case may be, with executed

copies for each Underwriter in the form set forth in Exhibit B hereto.

(b) The Company shall furnish to you at the time of purchase and, if applicable, at the additional time of purchase, an opinion of Lando & Anastasi, LLP special counsel for the Company with respect to patents and proprietary rights, addressed to the Underwriters, and dated the time of purchase or the additional time of purchase, as the case may be, with executed copies for each Underwriter in the form set forth in Exhibit C hereto.

(c) You shall have received from Ernst & Young LLP letters dated, respectively, the date of this Agreement, the date of the Prospectus, the time of purchase and, if applicable, the additional time of purchase, and addressed to the Underwriters (with executed copies for each Underwriter) in the forms satisfactory to UBS and Leerink, which letters shall cover, without limitation, the various financial disclosures contained in the Registration Statement, the Preliminary Prospectuses, the Prospectus and the Permitted Free Writing Prospectuses, if any.

(d) You shall have received at the time of purchase and, if applicable, at the additional time of purchase, the favorable opinion of Ropes & Gray LLP, counsel for the Underwriters, dated the time of purchase or the additional time of purchase, as the case may be, in form and substance reasonably satisfactory to UBS and Leerink.

(e) No Prospectus or amendment or supplement to the Registration Statement or the Prospectus shall have been filed to which you shall have objected in writing.

(f) The Registration Statement, the Exchange Act Registration Statement and any registration statement required to be filed, prior to the sale of the Shares, under the Act pursuant to Rule 462(b) shall have been filed and shall have become effective under the Act or the Exchange Act, as the case may be. If Rule 430A under the Act is used, the Prospectus shall have been filed with the Commission pursuant to Rule 424(b) under the Act at or before 5:30 P.M., New York City time, on the second full business day after the date of this Agreement (or such earlier time as may be required under the Act).

(g) (i) at the time of purchase and, if applicable, the additional time of purchase, no stop order with respect to the effectiveness of the Registration Statement shall have been issued under the Act or proceedings initiated under Section 8(d) or 8(e) of the Act; (ii) the Registration Statement shall not, as of the Effective Time, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; (iii) the Prospectus shall not, as of its date, the date that it was filed with the Commission, the time of purchase and, if applicable, the additional time of purchase, as then amended or supplemented, include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and (iv) the Disclosure Package shall not, as of the

Applicable Time, the time of purchase and, if applicable, the additional time of purchase, include an untrue statement of a material fact or omit to state a material fact

necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading.

(h) The Company will, at the time of purchase and, if applicable, at the additional time of purchase, deliver to you a certificate of its Chief Executive Officer and its Chief Operating Officer, dated the time of purchase or the additional time of purchase, as the case may be, in the form attached as Exhibit D hereto.

(i) You shall have received each of the signed Lock-Up Agreements referred to in Section 3(u) hereof, and each such Lock-Up Agreement shall be in full force and effect at the time of purchase and the additional time of purchase, as the case may be.

(j) The Company shall have furnished to you such other documents and certificates as to the accuracy and completeness of any statement in the Registration Statement, any Preliminary Prospectus, the Prospectus or any Permitted Free Writing Prospectus as of the time of purchase and, if applicable, the additional time of purchase, as you may reasonably request.

(k) The Shares shall have been approved for listing on the NASDAQ, subject only to notice of issuance and evidence of satisfactory distribution at or prior to the time of purchase or the additional time of purchase, as the case may be.

(l) FINRA shall not have raised any objection with respect to the fairness or reasonableness of the underwriting, or other arrangements of the transactions, contemplated hereby.

7. Effective Date of Agreement; Termination. This Agreement shall become effective when the parties hereto have executed and delivered this Agreement.

The obligations of the several Underwriters hereunder shall be subject to termination in the absolute discretion of UBS and Leerink, if (1) since the time of execution of this Agreement or the earlier respective dates as of which information is given in the Registration Statement, the Preliminary Prospectuses, the Prospectus and the Permitted Free Writing Prospectuses, if any, there has been any change or any development involving a prospective change in the business, properties, management, financial condition or results of operations of the Company, the effect of which change or development is, in the sole judgment of UBS and Leerink, so material and adverse as to make it impractical or inadvisable to proceed with the public offering or the delivery of the Shares on the terms and in the manner contemplated in the Registration Statement, the Disclosure Package and the Prospectus, or (2) since the time of execution of this Agreement, there shall have occurred: (A) a suspension or material limitation in trading in securities generally on the NYSE, the NYSE Amex or the NASDAQ; (B) a suspension or material limitation in trading in the Company's securities on the NASDAQ; (C) a general moratorium on commercial banking activities declared by either federal or New York State authorities or a material disruption in commercial banking or securities settlement or clearance services in the United States; (D) an outbreak or escalation of hostilities or acts of terrorism involving the United States or a declaration by the United States of a national emergency or war;

or (E) any other calamity or crisis or any change in financial, political or economic conditions in the United States or elsewhere, if the effect of any such event specified in clause (D) or (E), in the sole judgment of UBS and Leerink, makes it impractical or inadvisable to proceed with the public offering or the delivery of the Shares on the terms and in the manner contemplated in the Registration Statement, the Disclosure Package and the Prospectus, or (3) since the time of execution of this Agreement, there shall have occurred any downgrading, or any notice or announcement shall have been given or made of: (A) any intended or potential downgrading or (B) any watch, review or possible change that does not indicate an affirmation or improvement in the rating accorded any securities of or guaranteed by the Company by any "nationally recognized statistical rating organization," as that term is defined in Rule 436(g)(2) under the Act.

If UBS and Leerink elect to terminate this Agreement as provided in this Section 7, the Company and each other Underwriter shall be notified promptly in writing.

If the sale to the Underwriters of the Shares, as contemplated by this Agreement, is not carried out by the Underwriters for any reason permitted under this Agreement, or if such sale is not carried out because the Company shall be unable to comply with any of the terms of this Agreement, the Company shall not be under any obligation or liability under this Agreement (except to the extent provided in Sections 4(k), 5 and 9 hereof), and the Underwriters shall be under no obligation or liability to the Company under this Agreement (except to the extent provided in Section 9 hereof) or to one another hereunder.

8. Increase in Underwriters' Commitments. Subject to Sections 6 and 7 hereof, if any Underwriter shall default in its obligation to take up and pay for the Firm Shares to be purchased by it hereunder (otherwise than for a failure of a condition set forth in Section 6 hereof or the termination of this Agreement under the provisions of Section 7 hereof) and if the number of Firm Shares which all Underwriters so defaulting shall have agreed but failed to take up and pay for does not exceed 10% of the total number of Firm Shares, the non-defaulting Underwriters (including the Underwriters, if any, substituted in the manner set forth below) shall take up and pay for (in addition to the aggregate number of Firm Shares they are obligated to purchase pursuant to Section 1 hereof) the number of Firm Shares agreed to be purchased by all such defaulting Underwriters, as hereinafter provided. Such Shares shall be taken up and paid for by such non-defaulting Underwriters in such amount or amounts as you may designate with the consent of each Underwriter so designated or, in the event no such designation is made, such Shares shall be taken up and paid for by all non-defaulting Underwriters pro rata in proportion to the aggregate number of Firm Shares set forth opposite the names of such non-defaulting Underwriters in Schedule A.

Without relieving any defaulting Underwriter from its obligations hereunder, the Company agrees with the non-defaulting Underwriters that they will not sell any Firm Shares hereunder unless all of the Firm Shares are purchased by the Underwriters (or by substituted Underwriters selected by you with the approval of the Company or selected by the Company with your approval).

If a new Underwriter or Underwriters are substituted by the Underwriters or by

the Company for a defaulting Underwriter or Underwriters in accordance with the foregoing provision, the Company or you shall have the right to postpone the time of purchase for a period not exceeding five business days in order that any necessary changes in the Registration Statement and the Prospectus and other documents may be effected.

The term "Underwriter" as used in this Agreement shall refer to and include any Underwriter substituted under this Section 8 with like effect as if such substituted Underwriter had originally been named in Schedule A hereto.

If the aggregate number of Firm Shares which the defaulting Underwriter or Underwriters agreed to purchase exceeds 10% of the total number of Firm Shares which all Underwriters agreed to purchase hereunder, and if neither the non-defaulting Underwriters nor the Company shall make arrangements within the five business day period stated above for the purchase of all the Firm Shares which the defaulting Underwriter or Underwriters agreed to purchase hereunder, this Agreement shall terminate without further act or deed and without any liability on the part of the Company to any Underwriter and without any liability on the part of any non-defaulting Underwriter to the Company. Nothing in this paragraph, and no action taken hereunder, shall relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

9. Indemnity and Contribution.

(a) The Company agrees to indemnify, defend and hold harmless each Underwriter, its partners, directors, officers and members, any person who controls any Underwriter within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, and any "affiliate" (within the meaning of Rule 405 under the Act) of such Underwriter, and the successors and assigns of all of the foregoing persons, from and against any loss, damage, expense, liability or claim (including the reasonable cost of investigation) which, jointly or severally, any such Underwriter or any such person may incur under the Act, the Exchange Act, the common law or otherwise, insofar as such loss, damage, expense, liability or claim arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or in the Registration Statement as amended by any post-effective amendment thereof by the Company) or arises out of or is based upon any omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as any such loss, damage, expense, liability or claim arises out of or is based upon any untrue statement or alleged untrue statement of a material fact contained in, and in conformity with information concerning such Underwriter furnished in writing by or on behalf of such Underwriter through you to the Company expressly for use in, the Registration Statement or arises out of or is based upon any omission or alleged omission to state a material fact in the Registration Statement in connection with such information, which material fact was not contained in such information and which material fact was required to be stated in such Registration Statement or was necessary to make such information not misleading, or (ii) any untrue statement or alleged untrue statement of a material fact included in any Prospectus (the term Prospectus for the purpose of this Section 9 being deemed to include any

Preliminary Prospectus, the Prospectus and any amendments or supplements to the foregoing), in any Covered Free Writing Prospectus, in any "issuer information" (as defined in Rule 433 under the Act) of the Company or in any Prospectus together with any combination of one or more of the Covered Free Writing Prospectuses, if any, or arises out of or is based upon any omission or alleged omission to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, except, with respect to such Prospectus or any Permitted Free Writing Prospectus, insofar as any such loss, damage, expense, liability or claim arises out of or is based upon any untrue statement or alleged untrue statement of a material fact contained in, and in conformity with information concerning such Underwriter furnished in writing by or on behalf of such Underwriter through you to the Company expressly for use in, such Prospectus or Permitted Free Writing Prospectus or arises out of or is based upon any omission or alleged omission to state a material fact in such Prospectus or Permitted Free Writing Prospectus in connection with such information, which material fact was not contained in such information and which material fact was necessary in order to make the statements in such information, in the light of the circumstances under which they were made, not misleading.

(b) Each Underwriter severally agrees to indemnify, defend and hold harmless the Company, its directors and officers, and any person who controls the Company within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, and the successors and assigns of all of the foregoing persons, from and against any loss, damage, expense, liability or claim (including the reasonable cost of investigation) which, jointly or severally, the Company or any such person may incur under the Act, the Exchange Act, the common law or otherwise, insofar as such loss, damage, expense, liability or claim arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in, and in conformity with information concerning such Underwriter furnished in writing by or on behalf of such Underwriter through you to the Company expressly for use in, the Registration Statement (or in the Registration Statement as amended by any post-effective amendment thereof by the Company), or arises out of or is based upon any omission or alleged omission to state a material fact in such Registration Statement in connection with such information, which material fact was not contained in such information and which material fact was required to be stated in such Registration Statement or was necessary to make such information not misleading or (ii) any untrue statement or alleged untrue statement of a material fact contained in, and in conformity with information concerning such Underwriter furnished in writing by or on behalf of such Underwriter through you to the Company expressly for use in, a Prospectus or a Permitted Free Writing Prospectus, or arises out of or is based upon any omission or alleged omission to state a material fact in such Prospectus or Permitted Free Writing Prospectus in connection with such information, which material fact was not contained in such information and which material fact was necessary in order to make the statements in such information, in the light of the circumstances under which they were made, not misleading.

(c) If any action, suit or proceeding (each, a "Proceeding") is brought against a person (an "indemnified party") in respect of which indemnity may be sought against

the Company or an Underwriter (as applicable, the "indemnifying party") pursuant to subsection (a) or (b), respectively, of this Section 9, such indemnified party shall promptly notify such indemnifying party in writing of the institution of such Proceeding and such indemnifying party shall assume the defense of such Proceeding, including the employment of counsel reasonably satisfactory to such indemnified party and payment of all fees and expenses; provided, however, that the omission to so notify such indemnifying party shall not relieve such indemnifying party from any liability which such indemnifying party may have to any indemnified party pursuant to subsection (a) or (b), except to the extent that it has been materially prejudiced (through the forfeiture of substantive rights or defenses by such failure), or otherwise. The indemnified party or parties shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of such indemnified party or parties unless the employment of such counsel shall have been authorized in writing by the indemnifying party in connection with the defense of such Proceeding or the indemnifying party shall not have, within a reasonable period of time in light of the circumstances, employed counsel to defend such Proceeding or such indemnified party or parties shall have reasonably concluded that there may be defenses available to it or them which are different from, additional to or in conflict with those available to such indemnifying party (in which case such indemnifying party shall have the right to participate in but not the right to direct the defense of such Proceeding on behalf of the indemnified party or parties), in any of which events such fees and expenses shall be borne by such indemnifying party and paid as incurred (it being understood, however, that such indemnifying party shall not be liable for the expenses of more than one separate counsel (in addition to any local counsel) in any one Proceeding or series of related Proceedings in the same jurisdiction representing the indemnified parties who are parties to such Proceeding). The indemnifying party shall not be liable for any settlement of any Proceeding effected without its written consent but, if settled with its written consent, such indemnifying party agrees to indemnify and hold harmless the indemnified party or parties from and against any loss or liability by reason of such settlement. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by the second sentence of this Section 9(c), then the indemnifying party agrees that it shall be liable for any settlement of any Proceeding effected without its written

consent if (i) such settlement is entered into more than 60 business days after receipt by such indemnifying party of the aforesaid request, (ii) such indemnifying party shall not have fully reimbursed the indemnified party in accordance with such request prior to the date of such settlement and (iii) such indemnified party shall have given the indemnifying party at least 30 days' prior notice of its intention to settle. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement of any pending or threatened Proceeding in respect of which any indemnified party is or could have been a party and indemnity could have been sought hereunder by such indemnified party, unless such settlement includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such Proceeding and does not include an admission of fault or culpability or a failure to act by or on behalf of such indemnified party.

(d) If the indemnification provided for in this Section 9 is unavailable to an indemnified party under subsections (a) and (b) of this Section 9 or insufficient to hold an indemnified party harmless in respect of any losses, damages, expenses, liabilities or claims referred to therein, then each applicable indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, damages, expenses, liabilities or claims (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other hand from the offering of the Shares or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and of the Underwriters on the other in connection with the statements or omissions which resulted in such losses, damages, expenses, liabilities or claims, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same respective proportions as the total proceeds from the offering (net of underwriting discounts and commissions but before deducting expenses) received by the Company, and the total underwriting discounts and commissions received by the Underwriters, bear to the aggregate public offering price of the Shares. The relative fault of the Company on the one hand and of the Underwriters on the other shall be determined by reference to, among other things, whether the untrue statement or alleged untrue statement of a material fact or omission or alleged omission relates to information supplied by the Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The amount paid or payable by a party as a result of the losses, damages, expenses, liabilities and claims referred to in this subsection shall be deemed to include any legal or other fees or expenses reasonably incurred by such party in connection with investigating, preparing to defend or defending any Proceeding.

(e) The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 9 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take account of the equitable considerations referred to in subsection (d) above. Notwithstanding the provisions of this Section 9, no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares underwritten by such Underwriter and distributed to the public were offered to the public exceeds the amount of any damage which such Underwriter has otherwise been required to pay by reason of such untrue statement or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations to contribute pursuant to this Section 9 are several in proportion to their respective underwriting commitments and not joint.

(f) The indemnity and contribution agreements contained in this Section 9 and the covenants, warranties and representations of the Company contained in this Agreement shall remain in full force and effect regardless of any investigation made by

or on behalf of any Underwriter or any of their respective partners, directors, officers or members or any person (including each partner, officer, director or member of such person) who controls any Underwriter within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, or by or on behalf of the Company, its directors or officers or any person who controls the Company within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, and shall survive any termination of this Agreement or the issuance and delivery of the Shares. The Company and each Underwriter agree promptly to notify each other of the commencement of any Proceeding against it and, in the case of the Company, against any of the Company's officers or directors in connection with the issuance and sale of the Shares, or in connection with the Registration Statement, any Preliminary Prospectus, the Prospectus or any Permitted Free Writing Prospectus.

10. Information Furnished by the Underwriters. The statements set forth in the last paragraph on the cover page of the Prospectus and the statements set forth in the paragraph immediately following the title, "Commissions and Discounts" (other than the fifth sentence therein) and the six paragraphs immediately following the title, "Price Stabilization, Short Positions" (other than the last sentence therein), each under the caption "Underwriting" in the Prospectus, only insofar as such statements relate to the amount of selling concession and reallowance or to over-allotment and stabilization activities that may be undertaken by the Underwriters, and the statement set forth in the last paragraph following the title "Affiliations" under the caption "Underwriting," constitute the only information furnished by or on behalf of the Underwriters, as such information is referred to in Sections 3 and 9 hereof.

11. Notices. Except as otherwise herein provided, all statements, requests, notices and agreements shall be in writing or by telegram or facsimile and, if to the Underwriters, shall be sufficient in all respects if delivered or sent to UBS Securities LLC, 299 Park Avenue, New York, NY 10171-0026, Attention: Syndicate Department and Leerink Swann LLC, One Federal Street, 37th Floor, Boston, Massachusetts 02110-2015; and if to the Company, shall be sufficient in all respects if delivered or sent to the Company at the offices of the Company at 215 First Street, Suite 440, Cambridge, Massachusetts 02142, Attention: Chief Operating Officer.

12. Governing Law; Construction. This Agreement and any claim, counterclaim or dispute of any kind or nature whatsoever arising out of or in any way relating to this Agreement ("Claim"), directly or indirectly, shall be governed by, and construed in accordance with, the laws of the State of New York. The section headings in this Agreement have been inserted as a matter of convenience of reference and are not a part of this Agreement.

13. Submission to Jurisdiction. Except as set forth below, no Claim may be commenced, prosecuted or continued in any court other than the courts of the State of New York located in the City and County of New York or in the United States District Court for the Southern District of New York, which courts shall have exclusive jurisdiction over the adjudication of such matters, and the Company consents to the jurisdiction of such courts and personal service with respect thereto. The Company hereby consents to personal jurisdiction, service and venue in any court in which any Claim arising out of or in any way relating to this Agreement is brought by any third party against any Underwriter or any indemnified party to the

extent such Underwriter or indemnified party is likewise subject. Each Underwriter and the Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) waive all right to trial by jury in any action, proceeding or counterclaim (whether based upon contract, tort or otherwise) in any way arising out of or relating to this Agreement. The Company agrees that a final judgment in any such action, proceeding or counterclaim brought in any such court shall be conclusive and binding upon the Company and may be enforced in any other courts to the jurisdiction of which the Company is or may be subject, by suit upon such judgment.

14. Parties at Interest. The Agreement herein set forth has been and is made solely for the benefit of the Underwriters and the Company and to the extent provided in Section 9 hereof the controlling persons, partners, directors, officers, members and affiliates referred to in such Section, and their respective successors, assigns, heirs, personal representatives and executors and administrators. No other person, partnership, association or corporation (including a purchaser, as such purchaser, from any of the Underwriters) shall acquire or have any right under or by virtue of this Agreement.

15. No Fiduciary Relationship. The Company hereby acknowledges that the Underwriters are acting solely as underwriters in connection with the purchase and sale of the Company's securities. The Company further acknowledges that the Underwriters are acting pursuant to a contractual relationship created solely by this Agreement entered into on an arm's length basis, and in no event do the parties intend that the Underwriters act or be responsible as a fiduciary to the Company, its management, stockholders or creditors or any other person in connection with any activity that the Underwriters may undertake or have undertaken in furtherance of the purchase and sale of the Company's securities, either before or after the date hereof. The Underwriters hereby expressly disclaim any fiduciary or similar obligations to the Company, either in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions, and the Company hereby confirms its understanding and agreement to that effect. The Company and the Underwriters agree that they are each responsible for making their own independent judgments with respect to any such transactions and that any opinions or views expressed by the Underwriters to the Company regarding such transactions, including, but not limited to, any opinions or views with respect to the price or market for the Company's securities, do not constitute advice or recommendations to the Company. The Company and the Underwriters agree that the Underwriters are acting as principal and not the agent or fiduciary of the Company and no Underwriter has assumed, and none of them will assume, any advisory responsibility in favor of the Company with respect to the transactions contemplated hereby or the process leading thereto (irrespective of whether any Underwriter has advised or is currently advising the Company on other matters). The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Underwriters with respect to any breach or alleged breach of any fiduciary, advisory or similar duty to the Company in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions.

16. Counterparts. This Agreement may be signed by the parties in one or more counterparts which together shall constitute one and the same agreement among the parties.

17. Successors and Assigns. This Agreement shall be binding upon the Underwriters and the Company and their successors and assigns and any successor or assign of any substantial portion of the Company's and any of the Underwriters' respective businesses and/or assets.

18. Miscellaneous. UBS, an indirect, wholly owned subsidiary of UBS AG, is not a bank and is separate from any affiliated bank, including any U.S. branch or agency of UBS AG. Because UBS is a separately incorporated entity, it is solely responsible for its own contractual obligations and commitments, including obligations with respect to sales and purchases of securities. Securities sold, offered or recommended by UBS are not deposits, are not insured by the Federal Deposit Insurance Corporation, are not guaranteed by a branch or agency, and are not otherwise an obligation or responsibility of a branch or agency.

[***The Remainder of This Page Intentionally Left Blank; Signature Page Follows***]

If the foregoing correctly sets forth the understanding between the Company and the several Underwriters, please so indicate in the space provided below for that purpose, whereupon this Agreement and your acceptance shall constitute a binding agreement between the Company and the Underwriters, severally.

Very truly yours,

VERASTEM, INC.

By: _____
Name:
Title:

Accepted and agreed to as of the date first above written, on behalf of themselves and the other several Underwriters named in Schedule A

UBS SECURITIES LLC

By: _____
Name:
Title:

LEERINK SWANN LLC

By: _____
Name:
Title:

SCHEDULE A

Underwriter	Number of Firm Shares
UBS SECURITIES LLC	[ ]
LEERINK SWANN LLC	[ ]

LAZARD CAPITAL MARKETS LLC	[ ]
OPPENHEIMER & CO. INC.	[ ]
RODMAN AND RENSHAW INC.	[ ]
Total	[ ]

SCHEDULE B

[List any Permitted Free Writing Prospectuses]

SCHEDULE C

Price to public: $

Number of shares to be sold:

EXHIBIT A

, 2011

UBS Securities LLC
Leerink Swann LLC
As representatives of the several Underwriters
named in Schedule A to the Underwriting Agreement
referred to herein

c/o UBS Securities LLC
299 Park Avenue
New York, New York 10171-0026

Ladies and Gentlemen:

This Lock-Up Agreement is being delivered to you in connection with the proposed Underwriting Agreement (the "Underwriting Agreement") to be entered into by Verastem, Inc., a Delaware corporation (the "Company"), and you and the other underwriters named in Schedule A to the Underwriting Agreement, with respect to the public offering (the "Offering") of common stock, par value $.0001 per share, of the Company (the "Common Stock").

In order to induce you to enter into the Underwriting Agreement, the undersigned agrees that, for a period (the "Lock-Up Period") beginning on the date hereof and ending on, and including, the date that is [180/360] days after the date of the final prospectus relating to the Offering, the undersigned will not, without the prior written consent of UBS Securities LLC ("UBS") and Leerink Swann LLC ("Leerink"), (i) sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, directly or indirectly, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Securities and Exchange Commission (the "Commission") promulgated thereunder (the "Exchange Act") with respect to, any Common Stock or any other securities of the Company that are substantially similar to Common Stock, or any securities convertible into or exchangeable or exercisable for, or any warrants or other rights to purchase, the foregoing, (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of Common Stock or any other securities of the Company that are substantially similar to Common Stock, or any securities convertible into or exchangeable or exercisable for, or any warrants or other rights to purchase, the foregoing, whether any such transaction is to be settled by delivery of Common Stock or such other securities, in cash or otherwise or (iii) publicly announce an intention to effect any transaction specified in clause (i) or (ii). The foregoing sentence shall not apply to (a) the registration of the offer and sale of Common Stock as contemplated by the Underwriting Agreement and the sale of the Common Stock to the Underwriters (as defined in the Underwriting Agreement) in the Offering; (b) bona fide gifts, provided the recipient thereof

agrees in writing with the Underwriters to be bound by the terms of this Lock-Up Agreement; (c) dispositions to any trust for the direct or indirect benefit of the undersigned and/or the immediate family of the undersigned, provided that such trust agrees in writing with the Underwriters to be bound by the terms of this Lock-Up Agreement; (d) dispositions to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held by the undersigned and/or the immediate family of the undersigned, provided that such entity agrees in writing with the Underwriters to be bound by the terms of this Lock-Up Agreement; (e) dispositions by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the undersigned, provided the recipient thereof agrees in writing with the Underwriters to be bound by the terms of this Lock-Up Agreement; (f) distributions to partners, members or stockholders of the undersigned, provided that each distributee agrees in writing with the Underwriters to be bound by the terms of this Lock-Up Agreement; (g) the exercise of options to purchase Common Stock outstanding as of the date hereof or granted under equity incentive plans in effect as of the date hereof or described in the registration statement filed with the Commission with respect to the Offering, provided that the underlying Common Stock continues to be subject to the terms of this Lock-Up Agreement and that no filing under the Exchange Act reporting a disposition of Common Stock to satisfy the exercise price and/or tax withholding obligations shall be required or shall be voluntarily made in connection with such exercise; (h) the repurchase of Common Stock by the Company in connection with termination of the undersigned's employment with the Company; (i) the entry into any trading plan established pursuant to Rule 10b5-1 under the Exchange Act, provided that such plan does not provide for any sales or other dispositions of Common Stock during the Lock-Up Period and no public announcement or public disclosure of entry into such plan is made or required to be made; or (j) transactions relating to Common Stock acquired in open market transactions after the completion of the Offering, provided that no filing under the Exchange Act reporting a reduction in beneficial ownership of Common Stock by the undersigned shall be required or shall be voluntarily made in connection with such transactions. For purposes of this paragraph, "immediate family" shall mean the undersigned and the spouse, any lineal descendent, father, mother, brother, sister, nephew or niece of the undersigned.

If the undersigned is an officer or director of the Company, the undersigned further agrees that all of the foregoing provisions shall be equally applicable to any issuer-directed shares of Common Stock that the undersigned may purchase in the offering.

In addition, the undersigned hereby waives any rights the undersigned may have to require registration of Common Stock in connection with the filing of a registration statement relating to the Offering. The undersigned further agrees that, for the Lock-Up Period, the undersigned will not, without the prior written consent of UBS and Leerink, make any demand for, or exercise any right with respect to, the registration of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, or warrants or other rights to purchase Common Stock or any such securities.

Notwithstanding the above, if (a) during the period that begins on the date that is fifteen (15) calendar days plus three (3) business days before the last day of the Lock-Up Period and ends on the last day of the Lock-Up Period, the Company issues an earnings release or material news or a material event relating to the Company occurs; or (b) prior to the expiration of

the Lock-Up Period, the Company announces that it will release earnings results during the sixteen (16) day period beginning on the last day of the Lock-Up Period, then the restrictions imposed by this Lock-Up Agreement shall continue to apply until the expiration of the date that is fifteen (15) calendar days plus three (3) business days after the date on which the issuance of the earnings release or the material news or material event occurs.

In addition, the undersigned hereby waives any and all preemptive rights, participation rights, resale rights, rights of first refusal and similar rights that the undersigned may have in connection with the Offering or with any issuance or sale by the Company of any equity or other securities before the Offering, except for any such rights as have been heretofore duly exercised.

If the undersigned is an officer or director of the Company, (i) UBS and Leerink agree that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of Common Stock, UBS and Leerink will notify the Company of the impending release or waiver, and (ii) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by UBS and Leerink hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this letter to the extent and for the duration that such terms remain in effect at the time of the transfer.

The undersigned hereby confirms that the undersigned has not, directly or indirectly, taken, and hereby covenants that the undersigned will not, directly or indirectly, take, any action designed, or which has constituted or will constitute or might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of shares of Common Stock.

The undersigned hereby authorizes the Company and its transfer agent, during the Lock-Up Period, to decline the transfer of or to note stop transfer restrictions on the stock register and other records relating to shares of Common Stock or other securities subject to this Lock-Up Agreement of which the undersigned is the record holder, and, with respect to shares of Common Stock or other securities subject to this Lock-Up Agreement of which the undersigned is the beneficial owner but not the record holder, the undersigned hereby agrees to cause such record holder to authorize the Company and its transfer agent, during the Lock-Up Period, to decline the transfer of or to note stop transfer restrictions on the stock register and other records relating to such shares or other securities.

* * *

If (i) the Company notifies you in writing that it does not intend to proceed with the Offering, (ii) the registration statement filed with the Commission with respect to the Offering is withdrawn, (iii) the Underwriting Agreement does not become effective on or prior to June 30, 2012 or (iv) for any reason the Underwriting Agreement shall be terminated prior to the “time of purchase” (as defined in the Underwriting Agreement), this Lock-Up Agreement shall be terminated and the undersigned shall be released from its obligations hereunder.

Yours very truly,

_____

Name:

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
VERASTEM, INC.

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

VERASTEM, 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 **VERASTEM, INC.**, and that this corporation was originally incorporated pursuant to the General Corporation Law on August 4, 2010, under the name **VERASTEM, INC.** The original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on August 4, 2010, was amended and restated on November 3, 2010, was amended on March 22, 2011 and was amended and restated on July 11, 2011.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Amended and Restated 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 Amended and Restated Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is **VERASTEM, INC.** (the "**Corporation**").

SECOND: The address of the registered office of the Corporation in the State of Delaware is c/o United Corporate Services, Inc., 874 Walker Road, Suite C, Dover, County of Kent, Delaware 19904. The name of its registered agent at such address is United Corporate Services, Inc.

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 93,921,586, consisting of (i) 52,960,793 shares of

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Common Stock, $.0001 par value per share ("**Common Stock**"), and (ii) 40,960,793 shares of Preferred Stock, $.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.

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.

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). 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 (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of the Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. PREFERRED STOCK

16,000,000 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated "**Series A Preferred Stock**," 16,025,000 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated "**Series B Preferred Stock**" and 8,935,793 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated "**Series C Preferred Stock**." The Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock shall have the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to "Sections" or "Subsections" in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth.

1. Dividends.

The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in the Certificate of Incorporation) the holders of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock in an amount at least equal to (i) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, as would equal the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all shares

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of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, in each case calculated on the record date for determination of holders entitled to receive such dividend or (ii) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series A Preferred Stock, Series B

Preferred Stock or Series C Preferred Stock, as the case may be, determined by (A) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (B) multiplying such fraction by an amount equal to the Series A Original Issue Price, the Series B Original Issue Price or the Series C Original Issue Price (each as defined below), as the case may be; provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock pursuant to this Section 1 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, dividend. The "**Series A Original Issue Price**" shall mean $1.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock. 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 with respect to the Series B Preferred Stock. The "**Series C Original Issue Price**" shall mean $2.25 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Preferential Payments to Holders of Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event (as defined below), the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the Series A Original Issue Price, in the case of Series A Preferred Stock, the Series B Original Issue Price, in the case of Series B Preferred Stock, and the Series C Original Issue Price, in the case of the Series C Preferred Stock, plus any dividends declared but unpaid thereon. If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock the full amount to which they shall be entitled under this Subsection 2.1, the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall share ratably in any distribution of the 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.

2.2 Distribution of Remaining Assets. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, after the payment of all preferential amounts required by Section 2.1 to be paid to the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of the shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock, pro rata based on the number of shares held by each such holder, treating for this purpose all such securities as if they had been converted to Common Stock pursuant to the terms of the Certificate of Incorporation immediately prior to such dissolution, liquidation or winding up of the Corporation or Deemed Liquidation Event. Notwithstanding the foregoing, upon such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, (i) the amount the holders of shares of Series C Preferred Stock shall be entitled to receive shall be equal to the greater of (A) the amount such holder would be entitled to receive pursuant to the foregoing Subsection 2.1 and the first sentence of this Subsection 2.2, up to an aggregate amount not to exceed 1.75 times the Series C Original Issue Price for each share of Series C Preferred Stock and (B) the amount such holder would have received if all shares of Series C Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, (ii) the amount the holders of shares of Series B Preferred Stock shall be entitled to receive shall be equal to the greater of (A) the amount such holder would be entitled to receive pursuant to the foregoing Subsection 2.1 and the first sentence of this Subsection 2.2, up to an aggregate amount not to exceed 1.75 times the Series B Original Issue Price for each share of Series B Preferred Stock and (B) the amount such holder would have received if all shares of Series B Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event and (iii) the amount the holders of shares of Series A Preferred Stock shall be entitled to receive shall be equal to the greater of (A) the amount such holder would be entitled to receive pursuant to the foregoing Subsection 2.1 and the first sentence of this Subsection 2.2, up to an aggregate amount not to exceed 1.75 times the Series A Original Issue Price for each share of Series A Preferred Stock and (B) the amount such holder would have received if all shares of Series A Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event. The aggregate amount which a holder of a share of Series A Preferred Stock is entitled to receive under Subsections 2.1 and 2.2 is hereinafter referred to as the "**Series A Liquidation Amount**;" the aggregate amount which a holder of a share of Series B Preferred Stock is entitled to receive under Subsections 2.1 and 2.2 is hereinafter referred to as the "**Series B Liquidation Amount**;" and the aggregate amount which a holder of a share of Series C Preferred Stock is entitled to receive under Subsections 2.1 and 2.2 is hereinafter referred to as the "**Series C Liquidation Amount**."

2.3 Deemed Liquidation Events.

2.3.1 Definition. Each of the following events shall be considered a "**Deemed Liquidation Event**" unless the holders of (i) at least sixty percent (60%) of the then

outstanding shares of Series A Preferred Stock and Series B Preferred Stock, voting together as a single class and on an as-converted basis, and (ii) at least sixty percent (60%) of the then outstanding shares of Preferred Stock voting together as a single class and on an as-converted basis (such holders, the "**Requisite Investors**") elect otherwise by written notice sent to the Corporation at least 10 days prior to the effective date of any such event:

(a) a merger or consolidation in which

(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 (1) the surviving or resulting corporation or (2) 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 2.3.1, all shares of Common Stock issuable upon exercise of Options (as defined below) outstanding immediately prior to such merger or consolidation or upon conversion of Convertible Securities (as defined below) 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

(b) 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.

2.3.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Subsection 2.3.1(a)(i) unless the agreement or plan of merger or consolidation for such transaction 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 2.1 and 2.2.

(b) In the event of a Deemed Liquidation Event referred to in Subsection 2.3.1(a)(ii) or 2.3.1(b), if the Corporation does not effect a dissolution of the

Corporation under the General Corporation Law within 90 days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice to each holder of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock no later than the 90th day after the Deemed Liquidation 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 Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, and (ii) the Requisite Investors so request in a written instrument delivered to the Corporation not later than 120 days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation 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, all to the extent permitted by Delaware law governing distributions to stockholders (the "**Available Proceeds**"), on the 150th day after such Deemed Liquidation Event, to redeem all outstanding shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock, as the case may be, at a price per share equal to the Series A Liquidation Amount, the Series B Liquidation Amount or the Series C Liquidation Amount, as the case may be. 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 Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock, the Corporation shall ratably redeem each holder's shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock to the fullest extent of such Available Proceeds, and shall redeem the remaining shares as soon as it may lawfully do so under Delaware law governing distributions to stockholders. The provisions of Section 6 shall apply, with such necessary changes in the details thereof as are necessitated by the context, to the redemption of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock pursuant to this Subsection 2.3.2(b). Prior to the distribution or redemption provided for in this Subsection 2.3.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

2.3.3 Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such Deemed Liquidation Event or redemption shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board of Directors of the Corporation.

2.3.4 Allocation of Escrow. In the event of a Deemed Liquidation Event, 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 applicable transaction 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 Subsections 2.1 and 2.2 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation 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 Subsections 2.1 and 2.2 after taking into account the previous payment of the Initial Consideration as part of the same transaction.

3. Voting.

3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class and on an as-converted to Common Stock basis.

3.2 Election of Directors. The holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect four (4) directors of the Corporation (the "**Series A Directors**"), the holders of record of the shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock, exclusively and as a separate class, shall be entitled to elect two (2) directors of the Corporation, and the holders of record of the shares of Common Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation; provided, however, that (i) in the event that the Corporation does not consummate a Qualified Public Offering (as defined below) prior to the first anniversary of the Series C Original Issue Date, the holders of record of the shares of Series C Preferred Stock, exclusively and as a separate class, shall be entitled to elect an additional one (1) director of the Corporation and (ii) in the event of a Series C Redemption Default (as defined in Section 6.1.4 below), the holders of record of the shares of Series C Preferred Stock, exclusively and as a separate class, shall be entitled to elect an additional three (3) directors of the Corporation in accordance with Section 6.1.4 below. Any director elected as provided in the preceding sentence may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. If the holders of shares of (i) Series A Preferred Stock, (ii) Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock or (iii) Common Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first sentence of this Subsection 3.2, then any directorship not so filled shall remain vacant until such time as the holders of the (i) Series A Preferred Stock, (ii) Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock or (iii) Common Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class. At any meeting held for the purpose of electing a

director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Subsection 3.2, a vacancy in any directorship filled by the holders of

any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3.2.

3.3 Preferred Stock Protective Provisions. At any time when at least 893,579 shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the 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 Requisite Investors, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class on an as-converted to Common Stock basis:

(a) liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any reclassification, reincorporation or recapitalization of the Corporation's outstanding shares of capital stock or effect any Deemed Liquidation Event, or consent to any of the foregoing;

(b) amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation;

(c) create, or authorize the creation of, or issue or obligate itself to issue shares of (or debt convertible into shares of), any additional class or series of capital stock unless the same ranks junior to the Series A Preferred Stock, the Series B Preferred Stock and the Series C 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 any additional class or series of capital stock;

(d) (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series C Preferred Stock in respect of any such right, preference or privilege, or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock in respect of any such right, preference or privilege;

(e) purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in

the form of additional shares of Common Stock and (iii) 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;

(f) create, or authorize the creation of, or issue, or authorize the issuance of any debt security, or permit any subsidiary to take any such action with respect to any debt security, if the aggregate indebtedness of the Corporation and its subsidiaries for borrowed money following such action would exceed $1,000,000;

(g) effect any acquisition of capital stock of another entity which results in the consolidation of that entity into the results of operations of the Company or the acquisition of all or substantially all of the assets of another entity;

(h) increase or decrease the authorized number of directors constituting the Board of Directors; or

(i) increase the number of shares of Common Stock reserved for issuance under the Company's 2010 Equity Incentive Plan beyond 1,999,348 (the "**Reserved Share Amount**") or create any new equity incentive plan.

3.4 Series C Preferred Stock Protective Provision. The Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, increase or decrease the authorized number of shares of Series C Preferred Stock without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the Requisite Series C Investors (as defined below), given in writing or by vote at a meeting. "**Requisite Series C Investors**" shall mean (i) for so long as both of Eastern Capital Limited ("**ECL**") and H & Q Healthcare Investors and H & Q Life Sciences Investors (together, "**H & Q**") own shares of Series C Preferred Stock, each of ECL and H & Q, (ii) if at any time one, but not both, of ECL or H & Q own shares of Series C Preferred Stock, the one of ECL or H & Q who owns shares of Series C Preferred Stock and (iii) if at any time neither ECL nor H & Q own shares of Series C Preferred Stock, the holders of at least a majority of the then outstanding shares of Series C Preferred Stock.

4. Optional Conversion.

The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

4.1 Right to Convert.

4.1.1 Conversion Ratio.

(a) 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 Original Issue Price by the Series A Conversion Price (as defined below) in effect at the time of conversion. The "**Series A**

Conversion Price" shall initially be equal to $1.00. 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 adjustment as provided below.

(b) Each share of Series B 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 B Original Issue Price by the Series B Conversion Price (as defined below) in effect at the time of conversion. The "**Series B Conversion Price**" shall initially be equal to $2.00. Such initial Series B Conversion Price, and the rate at which shares of Series B Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

(c) Each share of Series C 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 C Original Issue Price by the Series C Conversion Price (as defined below) in effect at the time of conversion. The "**Series C Conversion Price**" shall initially be equal to $2.25. Such initial Series C Conversion Price, and the rate at which shares of Series C Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

4.1.2 Termination of Conversion Rights. In the event of a notice of redemption of any shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock pursuant to Section 6, the Conversion Rights of the shares designated for redemption shall terminate at the close of business on the last full day preceding the date fixed for redemption, unless the redemption price is not fully paid on such redemption date, in which case the Conversion Rights for such shares shall continue until such price is paid in full. 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, Series B Preferred Stock or Series C Preferred Stock, as the case may be.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the 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 Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of 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 applicable series of 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 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 (or by the Corporation if the Corporation serves as its own transfer agent) of such certificates (or lost certificate affidavit and agreement) and notice 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, (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, (ii) pay in cash such amount as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of the applicable series of Preferred Stock converted.

4.3.2 Reservation of Shares. The Corporation shall at all times when any Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the 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 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 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 the Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the applicable series of 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, Series B Conversion Price or Series C Conversion Price, as the case may be.

4.3.3 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 Conversion Time, 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 Subsection 4.2 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, 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.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price shall be made for any declared but unpaid dividends on the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock, as the case may be, surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 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 pursuant to this Section 4. 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.

4.4 Adjustments to Conversion Prices for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, 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) "**Series A Original Issue Date**" shall mean the date on which the first share of Series A Preferred Stock was issued.

(c) "**Series B Original Issue Date**" shall mean the date on which the first share of Series B Preferred Stock was issued.

(d) **"Series C Original Issue Date"** shall mean the date on which the first share of Series C Preferred Stock was issued.

(e) "**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.

(f) "**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) by the Corporation after the Series C Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "**Exempted Securities**"):

(i) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, provided (a) the number of shares of Common Stock issued as a dividend or distribution on a share of any series of Preferred Stock multiplied by the number of shares of Common Stock into which a share of such series of Preferred Stock is then convertible is equal to (b) the number of shares of Common Stock issued as a dividend or distribution on a share of every other series of Preferred Stock multiplied by the number of shares of Common Stock into which a share of such series of Preferred Stock is then convertible;

(ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 4.5, 4.6, 4.7 or 4.8;

(iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Corporation (including at least a majority of the Series A Directors then in office), in any event, not to exceed the Reserved Share Amount;

(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 upon a Special Mandatory Conversion (as defined below);

(v) shares of Common Stock issued in a Qualified Public Offering;

(vi) shares of Common Stock, Options or Convertible Securities issued 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 (including at least a majority of the Series A Directors then in office); or

(vii) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships approved by the affirmative written consent or vote of the Requisite Investors, including without limitation up to 583,333 shares issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) pursuant to the Exclusive Patent License and Tangible Property Agreement, dated October 13, 2010, by and between the Corporation and the Whitehead Institute for Biomedical Research as in effect on the Series C Original Issue Date and as it may be amended from time to time.

4.4.2 No Adjustment of Conversion Prices. No adjustment in the Series A Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least two-thirds 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. No adjustment in the Series B Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least two-thirds of the then outstanding shares of Series B 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. No adjustment in the Series C Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the Requisite Series C Investors agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Series C Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which 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 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, the Series B Conversion Price or the Series C Conversion Price pursuant to the terms of Subsection 4.4.4, 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 (1) 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 (2) 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 Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, 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, Series B Conversion Price or Series C 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 readjustment pursuant to this clause (b) shall have the effect of increasing the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price to an amount which exceeds the lower of (i) the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, 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.

(c) 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 the Series A Conversion Price, did not result in an adjustment to the Series B Conversion Price or did not result in an adjustment to the Series C Conversion Price pursuant to the terms of Subsection 4.4.4 (either because the consideration per share (determined pursuant to Subsection 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, then in effect, or because such Option or Convertible Security was issued before the Series A Original Issue Date, the Series B Original Issue Date or the Series C Original Issue Date, as the case may be), are revised after the Series A Original Issue Date, the Series B Original Issue Date or the Series C Original Issue Date, as the case may be, 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 Subsection 4.4.3(a)) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) 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 the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price pursuant to the terms of Subsection 4.4.4, the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, shall be readjusted to such Series A Conversion Price, such Series B Conversion Price or such Series C Conversion Price, as the case may be, as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) 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 the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price provided for in this Subsection 4.4.3 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 Subsection 4.4.3). 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 the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price that would result under the terms of this Subsection 4.4.3 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 the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Conversion Prices Upon Issuance of Additional Shares of Common Stock.

(a) In the event the Corporation shall at any time after the Series C Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without

consideration or for a consideration per share less than the 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:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(i) "CP_2" shall mean the Series A Conversion Price in effect immediately after such issue of Additional Shares of Common Stock;

(ii) "CP_1" shall mean the Series A Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;

(iii) "A" shall mean the number of shares of Common Stock 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 or exchange of Convertible Securities (including the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(iv) "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_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

(v) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

(b) In the event the Corporation shall at any time after the Series C Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Series B Conversion Price in effect immediately prior to such issue, then the Series B 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:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(i) "CP_2" shall mean the Series B Conversion Price in effect immediately after such issue of Additional Shares of Common Stock;

(ii) "CP_1" shall mean the Series B Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;

(iii) "A" shall mean the number of shares of Common Stock 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 or exchange of Convertible Securities (including the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(iv) "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_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

(v) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

(c) In the event the Corporation shall at any time after the Series C Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Series C Conversion Price in effect immediately prior to such issue, then the Series C 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:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(i) "CP_2" shall mean the Series C Conversion Price in effect immediately after such issue of Additional Shares of Common Stock;

(ii) "CP_1" shall mean the Series C Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;

(iii) "A" shall mean the number of shares of Common Stock 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 or exchange of Convertible Securities (including the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(iv) "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_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

(v) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.5 Determination of Consideration. For purposes of this Subsection 4.4, 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 4.4.3, 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, 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.

4.4.6 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, the Series B Conversion Price or the Series C Conversion Price pursuant to the terms of Subsection 4.4.4 then, upon the final such issuance, the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, 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).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Series C Original Issue Date effect a subdivision of the outstanding Common Stock, then the Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price 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 Series C Original Issue Date combine the outstanding shares of Common Stock, then the Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price 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.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series C 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, the Series B Conversion Price and the Series C 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, the Series B Conversion Price or the Series C Conversion Price, as the case may be, 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.

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 Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price 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 with respect to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price if the holders of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, 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 Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series C 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 1 do not apply to such dividend or distribution, then and in each such event the holders of Series A Preferred Stock, Series B Preferred Stock and Series C 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 Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not any of the Series A Preferred Stock, the Series B

Preferred Stock or the Series C Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 4.5, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, 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, Series B Preferred Stock or Series C Preferred Stock, as the case may be, 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 4 with respect to the rights and interests thereafter of the holders of the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock, as the case may be, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Series A Conversion Price, the Series B Conversion Price or the Series C 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, the Series B Preferred Stock or the Series C Preferred Stock, as the case may be.

4.9 Special Adjustments for Increase in Option Pool.

4.9.1 Series A Adjustment. If at any time prior to May 3, 2012, the Corporation increases the Reserved Share Amount or otherwise reserves shares of Common Stock for issuance to, or issues shares of Common Stock or grants Options to, employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to an equity incentive plan, either alone or cumulatively in an amount that exceeds 1,999,348 shares of Common Stock (each such event, a "Series A Reserved Amount Default"), then upon the occurrence of each such Series A Reserved Amount Default during such period, the Series A Conversion Price shall be appropriately adjusted (calculated to the nearest one hundredth of a cent), such that the aggregate number of shares of Series A Preferred Stock issued pursuant to the Series A Purchase Agreement (as defined below) shall continue to represent the same proportion of the Company on a fully-diluted basis (assuming full conversion and exercise of all Options and other Convertible Securities then outstanding, and issuance of all shares and other rights available for issuance under equity incentive plans or pursuant to other instruments (and including the issuance of the shares of Common Stock or Options that resulted in such Series A Reserved Amount Default)), as such shares represented prior to the occurrence of such Series A Reserved Amount Default. "Series A Purchase Agreement" means that certain Series A Preferred Stock Purchase Agreement, dated on or about the Series A Original Issue Date, among the Corporation and the other parties thereto, as the same may be amended, restated or otherwise modified from time to time. For clarity, any such adjustment pursuant to this Subsection 4.9.1 shall be effected simultaneously with any adjustments effected pursuant to Subsections 4.9.2 and 4.9.3 below.

4.9.2 Series B Adjustment. If at any time prior to May 3, 2012, the Corporation increases the Reserved Share Amount or otherwise reserves shares of Common Stock for issuance to, or issues shares of Common Stock or grants Options to, employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to an equity incentive plan, either alone or cumulatively in an amount that exceeds 1,999,348 shares of Common Stock (each such event, a "Series B Reserved Amount Default"), then upon the occurrence of each such Series B Reserved Amount Default during such period, the Series B Conversion Price shall be appropriately adjusted (calculated to the nearest one hundredth of a cent), such that the aggregate number of shares of Series B Preferred Stock issued pursuant to the Series B Purchase Agreement (as defined below) shall continue to represent the same proportion of the Company on a fully-diluted basis (assuming full conversion and exercise of all Options and other Convertible Securities then outstanding, and issuance of all shares and other rights available for issuance under equity incentive plans or pursuant to other instruments (and including the issuance of the shares of Common Stock or Options that resulted in such Series B Reserved Amount Default)), as such shares represented prior to the occurrence of such Series B Reserved Amount Default. "Series B Purchase Agreement" means that certain Series B Preferred Stock Purchase Agreement, dated on or about the Series B Original Issue Date, among the Corporation and the other parties thereto, as the same may be amended, restated or otherwise modified from time to time. For clarity, any such adjustment pursuant to this Subsection 4.9.2 shall be effected simultaneously with any adjustments effected pursuant to Subsection 4.9.1 above and Subsection 4.9.3 below.

4.9.3 Series C Adjustment. If at any time prior to May 3, 2012, the Corporation increases the Reserved Share Amount or otherwise reserves shares of Common Stock for issuance to, or issues shares of Common Stock or grants Options to, employees or

directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to an equity incentive plan, either alone or cumulatively in an amount that exceeds 1,999,348 shares of Common Stock (each such event, a "Series C Reserved Amount Default"), then upon the occurrence of each such Series C Reserved Amount Default during such period, the Series C Conversion Price shall be appropriately adjusted (calculated to the nearest one hundredth of a cent), such that the aggregate number of shares of Series C Preferred Stock issued pursuant to the Series C Purchase Agreement (as defined below) shall continue to represent the same proportion of the Company on a fully-diluted basis (assuming full conversion and exercise of all Options and other Convertible Securities then outstanding, and issuance of all shares and other rights available for issuance under equity incentive plans or pursuant to other instruments (and including the issuance of the shares of Common Stock or Options that resulted in such Series C Reserved Amount Default)), as such shares represented prior to the occurrence of such Series C Reserved Amount Default. "Series C Purchase Agreement" means that certain Series C Preferred Stock Purchase Agreement, dated on or about the Series C Original Issue Date, among the Corporation and the other parties thereto, as the same may be amended, restated or otherwise modified from time to time. For clarity, any such adjustment pursuant to this Subsection 4.9.3 shall be effected simultaneously with any adjustments effected pursuant to Subsections 4.9.1 and 4.9.2 above.

4.9.4 IPO Exception. Notwithstanding anything to the contrary in Subsections 4.9.1, 4.9.2 and 4.9.3, if, prior to the consummation of a firm-commitment underwritten public offering, the Corporation adopts a new equity incentive plan, but does not issue shares of Common Stock or Options pursuant to such equity incentive plan until after the consummation of such firm-commitment underwritten public offering (such equity incentive plan, a "Post-IPO Incentive Plan"), (i) none of the increase by the Corporation of the Reserved Share Amount, the adoption by the Corporation of such Post-IPO Incentive Plan or the reservation of shares of Common Stock in an amount in excess of 1,999,384 shares of Common Stock, in each case in connection with such Post-IPO Incentive Plan, shall constitute a Series A Reserved Amount Default, Series B Reserved Amount Default or Series C Reserved Amount Default and (ii) for the avoidance of doubt, there shall be no adjustment to the Series A Conversion Price, Series B Conversion Price or Series C Conversion Price as a result thereof because the adoption of an equity incentive plan and reservation of shares, without issuance of Options for shares of Common Stock thereunder, does not constitute an issuance or deemed issuance of Additional Shares of Common Stock. For the avoidance of doubt, in the event that, prior to the consummation of a firm-commitment underwritten public offering, the Corporation issues shares of Common Stock or grants Options pursuant to a Post-IPO Incentive Plan, such issuance may trigger an adjustment to the Series A Conversion Price, Series B Conversion Price or Series C Conversion Price, as applicable, in accordance with Subsections 4.9.1, 4.9.2 and 4.9.3.

4.10 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price pursuant to this Section 4, 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, Series B Preferred Stock or Series C Preferred Stock, as the case may be, 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, the Series B Preferred Stock or the Series C Preferred Stock, as the case may be, 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, Series B Preferred Stock or Series C 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, the Series B Conversion Price and the Series C 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, Series B Preferred Stock and Series C Preferred Stock. The provisions of this Section may be waived with the written consent of the Required Investors.

4.11 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Series A Preferred Stock, the Series B Preferred Stock or Series C 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 capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) 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 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 capital stock or securities at the time issuable upon the conversion of the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital 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, the Series B Preferred Stock, the Series C 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.

5. Mandatory Conversion.

5.1 Trigger Events. Upon either (a) the closing of a Qualified Public Offering or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the Requisite Investors (the time of such closing or the date and time specified or the time of the

event specified in such vote or written consent is referred to herein as the "**Mandatory Conversion Time**"), (i) all outstanding shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate and (ii) such shares may not be reissued by the Corporation. As used herein, "**Qualified Public Offering**" shall mean either (a) the sale of shares of Common Stock to the public at a price of at least $3.00 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), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, provided that (1) such offering results in at least $35,000,000 of gross proceeds to the Corporation, and (2) the Common Stock is listed for trading on either the New York Stock Exchange, the NASDAQ Capital Market or the NASDAQ Global Market, or (b) any other firm-commitment underwritten public offering of shares of Common Stock deemed to be a Qualified Public Offering by the vote or written consent of the Requisite Investors.

5.2 Procedural Requirements. All holders of record of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Series A Preferred Stock, Series B Preferred Stock and Series C 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 Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock converted pursuant to Subsection 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender the certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of their certificate or certificates (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Subsection 5.2. As soon as practicable after the Mandatory Conversion Time and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, 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 Subsection 4.2 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 Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock converted. Such converted Series A Preferred Stock, Series B Preferred Stock and Series C 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 Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock accordingly.

5A. Special Mandatory Conversion.

5A.1. Trigger Events. 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, in such Qualified Financing and within the time period specified by the Corporation (provided that the Corporation has sent to each holder of Preferred Stock at least 20 days written notice of, and the opportunity to purchase its Pro Rata Amount (as defined below) of, the Qualified Financing), such holder's Pro Rata Amount, then the Applicable Portion (as defined below) of the shares of 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 Series A Conversion Price, the Series B Conversion Price or the Series C 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 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 herein as a "**Special Mandatory Conversion**."

5A.2. Procedural Requirements. Upon a Special Mandatory Conversion, each holder of shares of Preferred Stock converted pursuant to Subsection 5A.1 shall be sent written notice of such Special Mandatory Conversion and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5A. 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 Subsection 5A.1, 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 Subsection 5A.2. 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 Subsection 4.2 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 Preferred Stock converted and a new certificate for the number of shares, if any, of Series A Preferred Stock represented by such surrendered certificate and not converted pursuant to Subsection 5A.1. Such converted Series A Preferred Stock, Series B Preferred Stock or Series C 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 Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock accordingly.

5A.3. Definitions. For purposes of this Section 5A, the following definitions shall apply:

5A.3.1 "**Affiliate**" shall mean, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any stockholder, general partner, managing member, officer or director of such Person, or any venture capital fund or registered investment company now or hereafter existing that is controlled by or under common control with one or more general partners or managing members of, or shares the same management company or investment advisor with, such Person.

5A.3.2 "**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.

5A.3.3 "**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.

5A.3.4 "**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 Preferred Stock (on an as-converted basis) owned by such holder, and the denominator of which is equal to the aggregate number of outstanding shares of Preferred Stock (on an as-converted basis), 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.

5A.3.5 "**Qualified Financing**" shall mean any transaction involving the issuance or sale of Additional Shares of Common Stock (other than a public offering) with aggregate gross proceeds to the Corporation of no greater than $50,000,000 after the Series C Original Issue Date which would result in a reduction of the Series C Conversion Price pursuant to the terms of the Certificate of Incorporation (without giving effect to the operation of Subsection 4.4.2), unless the Requisite Investors elect, by written notice sent to the Corporation at least ten (10) days prior to the consummation of the Qualified Financing, that such transaction not be treated as a Qualified Financing for purposes of this Section 5A.

6. Redemption.

6.1 Redemption.

6.1.1 Shares of Series C Preferred Stock shall be redeemed by the Corporation out of funds lawfully available therefor at a price equal to the Series C Original Issue Price per share, plus all declared but unpaid dividends thereon (the "**Series C Redemption Price**"), in three equal annual installments commencing not more than 60 days after receipt by the Corporation at any time after the fifth anniversary of the Series C Original Issue Date, from the Series C Requisite Investors, of written notice requesting redemption of all shares of Series C Preferred Stock (the "**Series C Redemption Notice**"). The date of each such installment shall be referred to as a "**Redemption Date**". The Corporation shall send a written notice (the "**Notice to Series A and Series B Holders**") to each holder of Series A Preferred Stock and each holder of Series B Preferred Stock no later than the 20th day after the receipt of the Series C Redemption Notice informing such holder of the receipt of the Series C Redemption Notice. On each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Series C Preferred Stock owned by each holder, that number of outstanding shares of Series C Preferred Stock determined by dividing (i) the total number of shares of Series C 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 if the Corporation receives, no later than 20 days after delivery of the Notice to Series A and Series B Holders by the Corporation, from the holders of at least two-thirds of the then outstanding shares of Series B Preferred Stock, a written notice requesting redemption of all shares of Series B Preferred Stock (the "**Series B Redemption Notice**"), then on each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Series B Preferred Stock owned by each holder, that number of outstanding shares of Series B Preferred Stock determined by dividing (i) the total number of shares of Series B 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 further, however that Excluded Shares (as such term is defined in Subsection 6.2) 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 Series C Preferred Stock and Series B Preferred Stock (if requested pursuant to a Series B Redemption Notice) 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.

6.1.2 Shares of Series B Preferred Stock shall be redeemed by the Corporation out of funds lawfully available therefor at a price equal to the Series B Original Issue Price per share, plus all declared but unpaid dividends thereon (the "**Series B Redemption Price**"), in three equal annual installments commencing not more than 60 days after receipt by the Corporation at any time after the fifth anniversary of the Series C Original Issue Date, from the holders of at least two-thirds of the then outstanding shares of the Series B Preferred Stock, of written notice requesting redemption of all shares of Series B Preferred Stock (the "**Series B Redemption Notice**"). The date of each such installment shall be referred to as a "**Redemption Date.**" The Corporation shall send a written notice (the "**Notice to Series A and Series C Holders**") to each holder of Series A Preferred Stock and each holder of Series C Preferred Stock no later than the 20th day after the receipt of the Series B Redemption Notice informing such holder of the receipt of the Series B Redemption Notice. On each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Series B Preferred Stock owned by each holder, that number of outstanding shares of Series B Preferred Stock determined by dividing (i) the total number of shares of Series B 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 if the Corporation receives, no later than 20 days after delivery of the Notice to Series A and Series C Holders by the Corporation, from the Requisite Series C Investors, a Series C Redemption Notice, then on each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Series C Preferred Stock owned by each holder, that number of outstanding shares of Series C Preferred Stock determined by dividing (i) the total number of shares of Series C 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 further, however that Excluded Shares (as such term is defined in Subsection 6.2) 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 Series B Preferred Stock and Series C Preferred Stock (if requested pursuant to a Series C Redemption Notice) 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.

6.1.3 Shares of Series A Preferred Stock shall be redeemed by the Corporation out of funds lawfully available therefor at a price equal to the Series A Original Issue Price per share, plus all declared but unpaid dividends thereon (the "**Series A Redemption Price**"), in the case of the Series A Preferred Stock on each Redemption Date if the Corporation receives, no later than 20 days after delivery of the Notice to Series A and Series B Holders or the Notice to Series A and Series C Holders, as the case may be, by the Corporation, from the holders of at least two-thirds of the then outstanding shares of the Series A Preferred Stock, a written notice requesting redemption of all shares of Series A Preferred Stock. On each

Redemption Date, the Corporation shall redeem, (i) first, the shares of Series C Preferred Stock and Series B Preferred Stock pursuant to Sections 6.1.1 and 6.1.2, and (ii) second, if the Corporation has sufficient funds legally available to redeem shares of Series A Preferred Stock after redemption of the Series C Preferred Stock and Series B Preferred Stock on such Redemption Date, on a pro rata basis in accordance with the number of shares of Series A Preferred Stock owned by each holder of Series A Preferred Stock, that number of outstanding shares of Series A Preferred Stock determined by dividing (A) the total number of shares of Series A Preferred Stock outstanding immediately prior to such Redemption Date by (B) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies); provided, however, that Excluded Shares (as such term is defined in Subsection 6.2) 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 Series A Preferred Stock to be redeemed on such Redemption Date, the Corporation shall redeem, subject to the immediately preceding sentence, 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 of Series A Preferred Stock and, subject to the immediately preceding sentence, shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor.

6.1.4 In the event of a default by the Corporation on the redemption provisions set forth in this Section 6.1 (a "**Redemption Default**"), the holders of the unredeemed shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock shall be entitled to default interest at a per annum rate equal to 5% on the unpaid amount, which amount shall be increased by 1% at the end of each three month period thereafter until the Redemption Price, and any interest thereon, is paid in full. In addition and notwithstanding the foregoing sentence above, in the event of a Redemption Default affecting the Series C Preferred Stock (A "**Series C Redemption Default**"), the holders of the unredeemed Series C Preferred Stock shall be entitled to elect three additional directors of the Corporation, until such default is cured.

6.2 Redemption Notice. The Corporation shall send written notice of the mandatory redemption (the "**Redemption Notice**") to each holder of record of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock not less than 40 days prior to each Redemption Date. Each Redemption Notice shall state:

(a) the number of shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice;

(b) the Redemption Date and the Redemption Price;

(c) the date upon which the holder's right to convert such shares terminates (as determined in accordance with Subsection 4.1); and

(d) 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 Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock to be redeemed.

If the Corporation receives, on or prior to the 20th day after the date of delivery of the Redemption Notice to a holder of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock, written notice from such holder that such holder elects to be excluded from the redemption provided in this Section 6, then the shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C 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**."

6.3 Surrender of Certificates; Payment. On or before the applicable Redemption Date, each holder of shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C 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 4, 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 Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock represented by a certificate are redeemed, a new certificate representing the unredeemed shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, shall promptly be issued to such holder.

6.4 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 Series A Preferred Stock, Series B Preferred Stock and/or Series C 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 Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock so called for redemption shall not have been surrendered, all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Series A Redemption Price, the Series B Redemption Price or the Series C Redemption Price, as the case may be, without interest upon surrender of their certificate or certificates therefor.

7. Redeemed or Otherwise Acquired Shares. Any shares of Preferred Stock that are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock following redemption.

8. Waiver. Except as otherwise provided in this Certificate of Incorporation or required by law, any of the rights, powers, preferences and other terms of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock set forth herein may be waived on behalf of all holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock by the affirmative written consent or vote of the Requisite Investors, provided such waiver by its terms is equally applicable to the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock. Any of the rights of the holders of Series A Preferred Stock may be waived (in a manner that does not apply to the holders of Series B Preferred Stock and Series C Preferred Stock) by the affirmative written consent or vote of at least two-thirds of the then outstanding shares of the Series A Preferred Stock. Any of the rights of the holders of Series B Preferred Stock may be waived (in a manner that does not apply to the holders of Series A Preferred Stock and Series C Preferred Stock) by the affirmative written consent or vote of at least two-thirds of the then outstanding shares of the Series B Preferred Stock. Any of the rights of the holders of Series C Preferred Stock may be waived (in a manner that does not apply to the holders of Series A Preferred Stock and Series B Preferred Stock) by the affirmative written consent or vote of the Series C Requisite Investors.

9. Notices. Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

FIFTH: Subject to any additional vote required by the Certificate of Incorporation or Bylaws, 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 the 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 is authorized to 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 such amendment, repeal or modification.

ELEVENTH: 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, Series B Preferred Stock or Series C Preferred Stock or any partner, member, director, trustee, 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.

* * *

3. That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this 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 this corporation's Amended and Restated Certificate of Incorporation 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 this corporation on this 1st day of November, 2011.

By: /s/ Robert Forrester
Name: Robert Forrester
Title: Chief Operating Officer

CERTIFICATE OF AMENDMENT
OF
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
VERASTEM, INC.

Verastem, 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:

1. That the name of this corporation is Verastem, Inc. The original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on August 4, 2010, was amended and restated on November 3, 2010, was amended on March 22, 2011, was amended and restated on July 11, 2011 and was amended and restated on November 1, 2011.

2. This Certificate of Amendment of Amended and Restated Certificate of Incorporation was duly adopted by unanimous written consent of the board of directors and written consent of the stockholders of the Corporation in accordance with the applicable provisions of Sections 141, 228 and 242 of the General Corporation Law of the State of Delaware.

3. The Amended and Restated Certificate of Incorporation is hereby amended by deleting the first sentence of Article FOURTH thereof in its entirety and substituting the following in lieu thereof:

"The total number of shares of all classes of stock which the Corporation shall have authority to issue is 94,185,650, consisting of (i) 53,092,825 shares of Common Stock, $.0001 par value per share ("**Common Stock**"), and (ii) 41,092,825 shares of Preferred Stock, $.0001 par value per share ("**Preferred Stock**")."

4. The Amended and Restated Certificate of Incorporation is hereby further amended by deleting the first three sentences of Part B of Article FOURTH thereof in their entirety and substituting the following in lieu thereof:

"16,000,000 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated "**Series A Preferred Stock**," 16,025,000 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated "**Series B Preferred Stock**" and 9,067,825 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated "**Series C Preferred Stock**." The Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock shall have the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to "Sections" or "Subsections" in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth."

IN WITNESS WHEREOF, this Certificate of Amendment of Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 15th day of November, 2011.

By: /s/ Robert Forrester
Name: Robert Forrester
Title: Chief Operating Officer

CERTIFICATE OF AMENDMENT

OF

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

VERASTEM, INC.

Pursuant to Section 242 of the
General Corporation Law of the State of Delaware

Verastem, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify as follows:

A resolution was duly adopted by the Board of Directors of the Corporation pursuant to Section 242 of the General Corporation Law of the State of Delaware setting forth a proposed amendment to the Amended and Restated Certificate of Incorporation of the Corporation, as amended, and declaring such amendment advisable. The stockholders of the Corporation duly approved and adopted such proposed amendment by written consent in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware. Accordingly, to effect such proposed amendment, it is:

RESOLVED: That a new first paragraph of Article FOURTH of the Amended and Restated Certificate of Incorporation of the Corporation be and hereby is inserted immediately preceding the existing first paragraph (listing the authorized classes and shares of stock of the Corporation) as follows:

"**FOURTH:** Upon the filing of this Certificate of Amendment of Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware (the **"Effective Time"**), a one-for-3.5 reverse stock split of the Corporation's Common Stock shall become effective, pursuant to which each 3.5 shares of Common Stock issued or outstanding (including treasury shares) immediately prior to the Effective Time shall be reclassified and combined into one validly issued, fully paid and nonassessable share of Common Stock automatically and without any action by the holder thereof upon the Effective Time and shall represent one share of Common Stock from and after the Effective Time (such reclassification and combination of shares designated as the **"Reverse Stock Split"**). No fractional shares of Common Stock shall be issued as a result of the Reverse Stock Split and, in lieu thereof, upon surrender after the Effective Time of a certificate which formerly represented shares of Common Stock that were issued and outstanding immediately prior to the Effective Time, any person who would otherwise be entitled to a fractional share of Common Stock as a result of the Reverse Stock Split, following the Effective Time, shall be entitled to receive a cash payment equal to the

fraction of which such holder would otherwise be entitled multiplied by the fair value per share as determined by the Board of Directors of the Corporation. Each stock certificate that, immediately prior to the Effective Time, represented shares of Common Stock that were issued and outstanding immediately prior to the Effective Time shall, from and after the Effective Time, automatically and without the necessity of presenting the same for exchange, represent that number of whole shares of Common Stock after the Effective Time into which the shares formerly represented by such certificate have been reclassified (as well as the right to receive cash in lieu of fractional shares of Common Stock after the Effective Time); provided, however, that each person of record holding a certificate that represented shares of Common Stock that were issued and outstanding immediately prior to the Effective Time shall receive, upon surrender of such certificate, a new certificate evidencing and representing the number of whole shares of Common Stock after the Effective Time into which the shares of Common Stock formerly represented by such certificate shall have been reclassified."

RESOLVED: That the existing first paragraph of Article FOURTH of the Amended and Restated Certificate of Incorporation of the Corporation (listing the authorized classes and shares of stock of the Corporation) be and hereby is deleted in its entirety and the following is inserted in lieu thereof:

"The total number of shares of all classes of stock which the Corporation shall have authority to issue is 127,518,983 shares, consisting of (i) 86,426,158 shares of Common Stock, $.0001 par value per share (**"Common Stock"**), and (ii) 41,092,825 shares of Preferred Stock, $.0001 par value per share (**"Preferred Stock"**)."

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IN WITNESS WHEREOF, this Certificate of Amendment, which has been duly adopted in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware, has been executed by a duly authorized officer of the Corporation on this 10th day of January, 2012.

VERASTEM, INC.

By: /s/ Christoph Westphal
Christoph Westphal
Chief Executive Officer

RESTATED CERTIFICATE OF INCORPORATION

OF

VERASTEM, INC.

Verastem, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware, does hereby certify as follows:

The current name of the Corporation is Verastem, Inc. The original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on August 4, 2010. The Certificate of Incorporation was amended and restated on November 1, 2011 and was amended on November 15, 2011 and January 5, 2012.

A resolution was duly adopted by the Board of Directors of the Corporation pursuant to Sections 242 and 245 of the General Corporation Law of the State of Delaware setting forth this Restated Certificate of Incorporation and declaring such Restated Certificate of Incorporation advisable. 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 of the State of Delaware.

Accordingly, the Certificate of Incorporation of this 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 Verastem, Inc.

SECOND: The address of the Corporation's registered office in the State of Delaware is United Corporate Services, Inc., 874 Walker Road, Suite C, in the City of Dover, County of Kent, Delaware 19904. The name of its registered agent at that address is United Corporate Services, Inc.

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 105,000,000 shares, consisting of (i) 100,000,000 shares of Common Stock, $.0001 par value per share ("Common Stock"), and (ii) 5,000,000 shares of Preferred Stock, $.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.

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 of the Corporation 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,

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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 Bylaws 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 Bylaws 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 Bylaws 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) 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 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, 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 Bylaws 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 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 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 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 Bylaws of the Corporation.

10. Amendments to Article. Notwithstanding any other provisions of law, this Certificate of Incorporation or the Bylaws 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 Bylaws 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 Bylaws 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 [ ], 2012.

VERASTEM, INC.

By: _____

Name: Christoph Westphal
Title: Chief Executive Officer

Exhibit 3.4

AMENDED AND RESTATED BYLAWS

OF

VERASTEM, 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

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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 Bylaws, 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 Bylaws 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 Bylaws. When a quorum is

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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 Bylaws, 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 Bylaws 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 Bylaws. 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 Bylaws; 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 Bylaws; 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 Bylaws; 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 Bylaws 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 Bylaws for the Board of Directors. Except as otherwise provided in the Certificate of Incorporation, these Bylaws, 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 Bylaws, 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 Bylaws, 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 Bylaws, 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 Bylaws. 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 Bylaws, 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 Bylaws.

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 Bylaws, 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 Bylaws 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 Bylaws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these Bylaws.

5.8 Pronouns. All pronouns used in these Bylaws 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 Bylaws may be altered, amended or repealed, in whole or in part, or new Bylaws may be adopted by the Board of Directors or by the stockholders as provided in the Certificate of Incorporation.

Exhibit 4.1

Verastem

PO BOX 43004, Providence, RI 02940-3004

MR A SAMPLE
DESIGNATION (IF ANY)
ADD 1
ADD 2
ADD 3
ADD 4
ADD 5
ADD 6

CUSIP
Holder ID
Insurance Value
Number of Shares
DTC

Certificate Numbers	Num/No.	Denom.	Total
12345678901234567890	1	1	1
12345678901234567890	2	2	2
12345678901234567890	3	3	3
12345678901234567890	4	4	4
12345678901234567890	5	5	5
12345678901234567890	6	6	6
Total Transaction			7

XXXXXX XX X
XXXXXXXXXX
1,000,000.00
12345678
12345678901234567890

016570| 003590|127C|RESTRICTED||4|057-423

COMMON STOCK
PAR VALUE $0.0001

COMMON STOCK
THIS CERTIFICATE IS TRANSFERABLE IN CANTON, MA AND NEW YORK, NY

Certificate Number
ZQ 000000

Verastem

VERASTEM, INC.
INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

Shares
000000****
000000**
****000000****
*****000000***
******000000**

THIS CERTIFIES THAT

MR. SAMPLE & MRS. SAMPLE &
MR. SAMPLE & MRS. SAMPLE

CUSIP 92337C 10 4
SEE REVERSE FOR CERTAIN DEFINITIONS

is the owner of

***ZERO HUNDRED THOUSAND
ZERO HUNDRED AND ZERO***

FULLY-PAID AND NON-ASSESSABLE SHARES OF THE COMMON STOCK OF

Verastem, Inc. (hereinafter called the "Company"), transferable on the books of the Company in person or by duly authorized attorney, upon surrender of this Certificate properly endorsed. This Certificate and the shares represented hereby, are issued and shall be held subject to all of the provisions of the Certificate of Incorporation and the Bylaws of the Company, each as amended and/or restated from time to time (copies of which are on file with the Company and with the Transfer Agent), to all of which each holder, by acceptance hereof, assents. This Certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar.

Witness the facsimile seal of the Company and the facsimile signatures of its duly authorized officers.

President

Treasurer

VERASTEM, INC. SEAL 2012 Delaware

DATED <<Month Day, Year>>

COUNTERSIGNED AND REGISTERED:
COMPUTERSHARE TRUST COMPANY, N.A.
TRANSFER AGENT AND REGISTRAR,

By _____
AUTHORIZED SIGNATURE

1234567

VERASTEM, INC.

THE COMPANY WILL FURNISH WITHOUT CHARGE TO EACH STOCKHOLDER WHO SO REQUESTS, A SUMMARY OF THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF STOCK OF THE COMPANY AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND RIGHTS, AND THE VARIATIONS IN RIGHTS, PREFERENCES AND LIMITATIONS DETERMINED FOR EACH SERIES, WHICH ARE FIXED BY THE CERTIFICATE OF INCORPORATION OF THE COMPANY, AS AMENDED AND/OR RESTATED FROM TIME TO TIME, AND THE RESOLUTIONS OF THE BOARD OF DIRECTORS OF THE COMPANY, AND THE AUTHORITY OF THE BOARD OF DIRECTORS TO DETERMINE VARIATIONS FOR FUTURE SERIES. SUCH REQUEST MAY BE MADE TO THE OFFICE OF THE SECRETARY OF THE COMPANY OR TO THE TRANSFER AGENT. THE OWNER OF A LOST OR DESTROYED STOCK CERTIFICATE, OR HIS LEGAL REPRESENTATIVES, MAY BE REQUIRED TO GIVE THE COMPANY A BOND TO INDEMNIFY IT AND ITS TRANSFER AGENTS AND REGISTRARS AGAINST ANY CLAIM THAT MAY BE MADE AGAINST THEM ON ACCOUNT OF THE ALLEGED LOSS OR DESTRUCTION OF ANY SUCH CERTIFICATE.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	- as tenants in common	UNIF GIFT MIN ACT	- ..... (Cust) ..... Custodian ..... (Minor) .....
TEN ENT	- as tenants by the entireties		under Uniform Gifts to Minors Act..... (State)
JT TEN	- as joint tenants with right of survivorship and not as tenants in common	UNIF TRF MIN ACT	- ..... (Cust) ..... Custodian (until age .....) ..... (Minor) ..... under Uniform Transfers to Minors Act ..... (State)

Additional abbreviations may also be used though not in the above list.

For value received, _____ hereby sell, assign and transfer unto

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING POSTAL ZIP CODE, OF ASSIGNEE)

_____

_____

_____ Shares

of the common stock represented by the within Certificate, and do hereby irrevocably constitute and appoint

_____ Attorney

to transfer the said stock on the books of the within-named Company with full power of substitution in the premises.

Dated: _____ 20_____

Signature: _____

Signature: _____

Notice: The signature to this assignment must correspond with the name as written upon the face of the certificate, in every particular, without alteration or enlargement, or any change whatever.

Signature(s) Guaranteed: Medallion Guarantee Stamp

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (Banks, Stockbrokers, Savings and Loan Associations and Credit Unions) WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM, PURSUANT TO S.E.C. RULE 17Ad-15.

SECURITY INSTRUCTIONS

THIS IS WATERMARKED PAPER. DO NOT ACCEPT WITHOUT NOTING WATERMARK. HOLD TO LIGHT TO VERIFY WATERMARK.

The IRS requires that we report the cost basis of certain shares acquired after January 1, 2011. If your shares were covered by the legislation and you have sold or transferred the shares and requested a specific cost basis calculation method, we have processed as requested. If you did not specify a cost basis calculation method, we have defaulted to the first in, first out (FIFO) method. Please visit our website or consult your tax advisor if you need additional information about cost basis.

If you do not keep in contact with us or do not have any activity in your account for the time periods specified by state law, your property could become subject to state unclaimed property laws and transferred to the appropriate state.

15346207

Exhibit 5.1

WILMERHALE

+1 212 230 8800 (t)
+1 212 230 8888 (f)
wilmerhale.com

January 13, 2012

Verastem, Inc.
215 First Street, Suite 440
Cambridge, Massachusetts 02142

Re: Registration Statement on Form S-1

Ladies and Gentlemen:

This opinion is furnished to you in connection with a Registration Statement on Form S-1 (File No. 333-177677) (the "Registration Statement") filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), for the registration of shares of Common Stock, $0.0001 par value per share, of Verastem, Inc., a Delaware corporation (the "Company"), with a proposed maximum aggregate offering price of $56,925,000 (the "Shares"), including Shares issuable upon exercise of an over-allotment option granted by the Company.

The Shares are to be sold by the Company pursuant to an underwriting agreement (the "Underwriting Agreement") to be entered into by and among the Company and the several underwriters named in Schedule A thereto, for which UBS Securities LLC and Leerink Swann LLC are acting as representatives, the form of which has been filed as Exhibit 1.1 to the Registration Statement.

We are acting as counsel for the Company in connection with the issue and sale by the Company of the Shares. We have examined signed copies of the Registration Statement as filed with the Commission. We have also examined and relied upon the Underwriting Agreement, minutes of meetings and actions of the stockholders and the Board of Directors of the Company as provided to us by the Company, stock record books of the Company as provided to us by the Company, the Certificate of Incorporation and Bylaws of the Company, each as restated and/or amended to date, and such other documents as we have deemed necessary for purposes of rendering the opinions hereinafter set forth.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as copies, the authenticity of the originals of such latter documents and the legal competence of all signatories to such documents.

We express no opinion herein as to the laws of any state or jurisdiction other than the state laws of the Commonwealth of Massachusetts, the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

Based upon and subject to the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when the Shares are issued and paid for in accordance with the terms and conditions of the Underwriting Agreement, the Shares will be validly issued, fully paid and nonassessable.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act and to the use of our name therein and in the related Prospectus under the caption "Legal matters." In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

WILMER CUTLER PICKERING
HALE AND DORR LLP

By: /s/ Brian A. Johnson
Brian A. Johnson, a Partner

VERASTEM, INC.

2012 Incentive Plan

1. Purpose

The purpose of this 2012 Incentive Plan (the "***Plan***") of Verastem, 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 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 and directors, as well as consultants and advisors to the Company (as such terms consultants and advisors are defined and interpreted for purposes of Form S-8 under the Securities Act of 1933, as amended (the "***Securities Act***"), or any successor form) are eligible to be granted Awards under the Plan. Each person who is granted an Award under the Plan is deemed a "***Participant***." "***Award***" means Options (as defined in Section 5), SARs (as defined in Section 6), Restricted Stock (as defined in Section 7), Restricted Stock Units (as defined in Section 7) and Other Stock-Based Awards (as defined in Section 8) and Cash-Based Awards (as defined in Section 8).

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 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.

(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 or the officers referred to in Section 3(c) to the extent that the Board's powers or authority under the Plan have been delegated to such Committee or officers.

(c) Delegation to Officers. To the extent permitted by applicable law, the Board may delegate to one or more officers of the Company the power to grant Options and other Awards that constitute rights under Delaware law (subject to any limitations under the Plan) to employees or officers of the Company and to exercise such other powers under the Plan as the Board may determine, *provided* that the Board shall fix the terms of such Awards to be granted by such officers (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 such Awards that the officers may grant; *provided further*, however, that no officer shall be authorized to grant such Awards to any "executive officer" of the Company (as defined by Rule 3b-7 under the Securities Exchange Act of 1934, as amended (the "***Exchange Act***")) or to any "officer" of the Company (as defined by Rule 16a-1 under the Exchange Act). The Board may not delegate authority under this Section 3(c) to grant Restricted Stock, unless Delaware law then permits such delegation.

4. Stock Available for Awards

(a) Number of Shares; Share Counting.

(1) Authorized Number of Shares. Subject to adjustment under Section 9, Awards may be made under the Plan (any or all of which Awards may be in the form of Incentive Stock Options, as defined in Section 5(b)) for up to such number of shares of common stock, $0.0001 par value per share, of the Company (the "***Common Stock***") as is equal to the sum of:

(A) 3,428,571 shares of Common Stock; plus

(B) such additional number of shares of Common Stock (up to 571,242 shares) as is equal to the sum of (x) the number of shares of Common Stock reserved for issuance under the Company's 2010 Equity Incentive Plan (the "***Existing Plan***") that remain available for grant under the Existing Plan immediately prior to the closing of the Company's initial public offering and (y) the number of shares of Common Stock subject to awards granted under the Existing Plan which awards expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by the Company at their original issuance price pursuant to a contractual repurchase right (subject, however, in the case of Incentive Stock Options to any limitations of the Code); plus

(C) an annual increase to be added on the first day of each of the fiscal year beginning with the fiscal year ending December 31, 2013, and on each anniversary thereof until the expiration of the Plan equal to the lesser of (i) 1,285,714 shares of Common Stock, (ii) 4% of the outstanding shares on such date or (iii) an amount determined by the Board.

Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

(2) Share Counting. For purposes of counting the number of shares available for the grant of Awards under the Plan:

(A) all shares of Common Stock covered by SARs shall be counted against the number of shares available for the grant of Awards under the Plan; *provided, however*, that (i) SARs that may be settled only in cash shall not be so counted and (ii) if the Company grants an SAR in tandem with an Option for the same number of shares of Common Stock and provides that only one such Award may be exercised (a "***Tandem SAR***"), only the shares covered by the Option, and not the shares covered by the Tandem SAR, shall be so counted, and the expiration of one in connection with the other's exercise will not restore shares to the Plan;

(B) if any Award (i) expires or is terminated, surrendered or canceled without having been fully exercised or 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 (ii) results in any Common Stock not being issued (including as a result of an SAR that was settleable either in cash or in stock actually being settled in cash), the unused Common Stock covered by such Award shall again be available for the grant of Awards; *provided, however*, that (1) in the case of Incentive Stock Options, the foregoing shall be subject to any limitations under the Code, (2) in the case of the exercise of an SAR, the number of shares counted against the shares available under the Plan shall be the full number of shares subject to the SAR multiplied by the percentage of the SAR actually exercised, regardless of the number of shares actually used to settle such SAR upon exercise and (3) the shares covered by a tandem SAR shall not again become available for grant upon the expiration or termination of such tandem SAR; and

(C) shares of Common Stock delivered (either by actual delivery, attestation, or net exercise) to the Company by a Participant to (i) purchase shares of Common Stock upon the exercise of an Award or (ii) satisfy tax withholding obligations (including shares retained from the Award creating the tax obligation) shall not be added back to the number of shares available for the future grant of Awards.

(b) Section 162(m) Per-Participant Limit. Subject to adjustment under Section 9, the maximum number of shares of Common Stock with respect to which Awards may be granted to any Participant under the Plan shall be 1,142,857 per calendar year. For purposes of the foregoing limit, the combination of an Option in tandem with an SAR shall be treated as a single Award. The per Participant limit described in this Section 4(b) shall be construed and applied consistently with Section 162(m) of the Code or any successor provision thereto, and the regulations thereunder ("***Section 162(m)***").

(c) 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)(1) or any sublimit contained in the Plan, 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.

(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 Verastem, Inc., any of Verastem, Inc.'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. An Option that is not intended to be an Incentive Stock Option shall be designated a "***Nonstatutory Stock Option***." 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 if the Company converts an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify the exercise price in the applicable Option agreement. The exercise price shall be not less than 100% of the fair market value per share of Common Stock as determined by (or in a manner approved by) the Board ("***Fair Market Value***") on the date the Option is granted; *provided* that if the Board approves the grant of an Option with an exercise price to be determined on a future date, the exercise price shall be not less than 100% of the Fair Market Value on such future date.

(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; *provided*, *however*, that no Option will be granted with a term in excess of 10 years.

(e) Exercise of Options. Options may be exercised by delivery to the Company of a notice of exercise in a form (which may be electronic) approved by the Company, together with payment in full (in the manner specified in Section 5(f)) of the exercise price 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 as soon as practicable following exercise.

(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 or approved by the Board, in its sole discretion, 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) 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, 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 provided for in the applicable Nonstatutory Stock Option agreement or approved by the Board in its sole discretion, by delivery of a notice of "net exercise" to the Company, as a result of which the Participant would receive (i) the number of shares underlying the portion of the Option being exercised, less (ii) such number of shares as is equal to (A) the aggregate exercise price for the portion of the Option being exercised divided by (B) the Fair Market Value on the date of exercise;

(5) 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 payment of such other lawful consideration as the Board may determine; or

(6) by any combination of the above permitted forms of payment.

(g) Limitation on Repricing. Unless such action is approved by the Company's stockholders, the Company may not (except as provided for under Section 9): (1) amend any outstanding Option granted under the Plan to provide an exercise price per share that is lower than the then-current exercise price per share of such outstanding Option, (2) cancel any outstanding option (whether or not granted under the Plan) and grant in substitution therefor new Awards under the Plan (other than Awards granted pursuant to Section 4(c)) covering the same or a different number of shares of Common Stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled option, (3) cancel in exchange for a cash payment any outstanding Option with an exercise price per share above the then-current Fair Market Value, other than pursuant to Section 9, or (4) take any other action under the Plan that constitutes a "repricing" within the meaning of the rules of the NASDAQ Stock Market.

6. Stock Appreciation Rights

(a) General. The Board may grant Awards consisting of stock appreciation rights ("***SARs***") entitling the holder, upon exercise, to receive an amount of Common Stock or cash or a combination thereof (such form to be determined by the Board) determined by reference to appreciation, from and after the date of grant, in the Fair Market Value of a share of Common

Stock over the measurement price established pursuant to Section 6(b). The date as of which such appreciation is determined shall be the exercise date.

(b) Measurement Price. The Board shall establish the measurement price of each SAR and specify it in the applicable SAR agreement. The measurement price shall not be less than 100% of the Fair Market Value on the date the SAR is granted; *provided* that if the Board approves the grant of an SAR effective as of a future date, the measurement price shall be not less than 100% of the Fair Market Value on such future date.

(c) Duration of SARs. Each SAR shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable SAR agreement; *provided, however*, that no SAR will be granted with a term in excess of 10 years.

(d) Exercise of SARs. SARs may be exercised by delivery to the Company of a notice of exercise in a form (which may be electronic) approved by the Company, together with any other documents required by the Board.

(e) Limitation on Repricing. Unless such action is approved by the Company's stockholders, the Company may not (except as provided for under Section 9): (1) amend any outstanding SAR granted under the Plan to provide a measurement price per share that is lower than the then-current measurement price per share of such outstanding SAR, (2) cancel any outstanding SAR (whether or not granted under the Plan) and grant in substitution therefor new Awards under the Plan (other than Awards granted pursuant to Section 4(c)) covering the same or a different number of shares of Common Stock and having an exercise or measurement price per share lower than the then-current measurement price per share of the cancelled SAR, (3) cancel in exchange for a cash payment any outstanding SAR with a measurement price per share above the then-current Fair Market Value, other than pursuant to Section 9, or (4) take any other action under the Plan that constitutes a "repricing" within the meaning of the rules of the NASDAQ Stock Market.

7. 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. The Board may also grant Awards entitling the recipient to receive shares of Common Stock or cash to be delivered at the time such Award vests ("***Restricted Stock Units***") (Restricted Stock and Restricted Stock Units are each referred to herein as a "***Restricted Stock Award***").

(b) Terms and Conditions for All Restricted Stock Awards. 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. Unless otherwise provided in the applicable Award agreement, any dividends (whether paid in cash, stock or property) declared and paid by the Company with respect to shares of Restricted Stock ("***Accrued Dividends***") shall be paid to the Participant only if and when such shares become free from the restrictions on transferability and forfeitability that apply to such shares. Each payment of Accrued Dividends will be made no later than the end of the calendar year in which the dividends are paid to stockholders of that class of stock or, if later, the 15th day of the third month following the lapsing of the restrictions on transferability and the forfeitability provisions applicable to the underlying shares of Restricted Stock.

(2) Stock Certificates. The Company may require that any stock certificates issued in respect of shares of Restricted Stock, as well as dividends or distributions paid on such 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 his or her Designated Beneficiary. "***Designated Beneficiary***" means (i) 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 or (ii) in the absence of an effective designation by a Participant, the Participant's estate.

(d) Additional Provisions Relating to Restricted Stock Units.

(1) Settlement. Upon the vesting of and/or lapsing of any other restrictions (i.e., settlement) with respect to each Restricted Stock Unit, the Participant shall be entitled to receive from the Company one share of Common Stock or (if so provided in the applicable Award agreement) an amount of cash equal to the Fair Market Value of one share of Common Stock. The Board may, in its discretion, provide that settlement of Restricted Stock Units shall be deferred, on a mandatory basis or at the election of the Participant in a manner that complies with Section 409A of the Code.

(2) Voting Rights. A Participant shall have no voting rights with respect to any Restricted Stock Units.

(3) Dividend Equivalents. The Award agreement for Restricted Stock Units may provide Participants with the right to receive an amount equal to any dividends or other distributions declared and paid on an equal number of outstanding shares of Common Stock ("***Dividend Equivalents***"). Dividend Equivalents may be paid currently or credited to an account for the Participant, may be settled in cash and/or shares of Common Stock and may be subject to the same restrictions on transfer and forfeitability as the Restricted Stock Units with respect to which paid, in each case to the extent provided in the Award agreement.

8. Other Stock-Based and Cash-Based Awards

(a) General. 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***"). 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. The Company may also grant Performance Awards or other Awards denominated in cash rather than shares of Common Stock ("***Cash-Based Awards***").

(b) Terms and Conditions. Subject to the provisions of the Plan, the Board shall determine the terms and conditions of each Other Stock-Based Award or Cash-Based Award, including any purchase price applicable thereto.

9. 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 the Plan, (ii) the share counting rules and sublimit set forth in Sections 4(a) and 4(b), (iii) the number and class of securities and exercise price per share of each outstanding Option, (iv) the share and per-share provisions and the measurement price of each outstanding SAR, (v) the number of shares subject to and the repurchase price per share subject to each outstanding Restricted Stock Award and (vi) the share and per-share-related provisions and the purchase price, if any, of each outstanding Other Stock-Based 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 transfer or disposition of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange or other transaction or (c) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock.

(A) 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 on such terms as the Board determines (except to the extent specifically provided otherwise in an applicable Award agreement or another agreement between the Company and the Participant): (i) provide that such 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 all of the Participant's 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, (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 Participants with respect to each Award held by a Participant equal to (A) 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 (B) the excess, if any, of (I) the Acquisition Price over (II) the exercise, measurement or purchase price of such Award and any applicable tax withholdings, in exchange for the termination of such Award, (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, measurement or purchase price thereof and any applicable tax withholdings) and (vi) any combination of the foregoing. In taking any of the actions permitted under this Section 9(b)(2), the Board shall not be obligated by the Plan to treat all Awards, all Awards held by a Participant, or all Awards of the same type, identically.

(B) Notwithstanding the terms of Section 9(b)(2)(A), in the case of outstanding Restricted Stock Units that are subject to Section 409A of the Code: (i) if the applicable Restricted Stock Unit agreement provides that the Restricted Stock Units shall be settled upon a "change in control event" within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i), and the Reorganization Event constitutes such a "change in control event", then no assumption or substitution shall be permitted pursuant to Section 9(b)(2)(A)(i) and the Restricted Stock Units shall instead be settled in accordance with the terms of the applicable Restricted Stock Unit agreement; and (ii) the Board may only undertake the actions set forth in clauses (iii), (iv) or (v) of Section 9(b)(2)(A) if the Reorganization Event constitutes a "change in control event" as defined under Treasury Regulation Section 1.409A-3(i)(5)(i) and such action is permitted or required by Section 409A of the Code; if the Reorganization Event is not a "change in control event" as so defined or such action is not permitted or required by Section 409A of the Code, and the acquiring or succeeding corporation does not assume or substitute the Restricted Stock Units pursuant to clause (i) of Section 9 (b)(2)(A), then the unvested Restricted Stock Units shall terminate immediately prior to the consummation of the Reorganization Event without any payment in exchange therefor.

(C) For purposes of Section 9(b)(2)(A)(i), an Award (other than Restricted Stock) shall be considered assumed if, following consummation of the Reorganization Event, such Award confers the right to purchase or receive pursuant to the terms of such Award, for each share of Common Stock subject to the Award 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 or settlement of the Award to consist solely of such number of shares of common stock of the acquiring or succeeding corporation (or an affiliate thereof) that the Board determined to be equivalent in value (as of the date of such determination or another date specified 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. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company with respect to outstanding Restricted Stock 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 such Restricted Stock; *provided*, *however*, that the Board may provide for termination or deemed satisfaction of such repurchase or other rights under the instrument evidencing any Restricted Stock or any other agreement between a Participant and the Company, either initially or by amendment. 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 or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock then outstanding shall automatically be deemed terminated or satisfied.

10. General Provisions Applicable to Awards

(a) Transferability of Awards. 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 or Awards subject to Section 409A of the Code, pursuant to a qualified domestic relations order, and, during the life of the Participant, shall be exercisable only by the Participant; *provided*, *however*, except with respect to Awards subject to Section 409A of the Code, that the Board may permit or provide in an Award for the gratuitous transfer of the Award by the Participant to or for the benefit of any immediate family member, family trust or other entity established for the benefit of the Participant and/or an immediate family member thereof if the Company would be eligible to use a Form S-8 under the Securities Act for the registration of the sale of the Common Stock subject to such Award to such proposed transferee; *provided further*, that the Company shall not be required to recognize any such permitted transfer until such time as such permitted transferee shall, as a condition to such transfer, deliver to the Company a written instrument in form and substance satisfactory to the Company confirming that such transferee shall be bound by all of the terms and conditions of the Award. References to a Participant, to the extent relevant in the context, shall include references

to authorized transferees. For the avoidance of doubt, nothing contained in this Section 10(a) shall be deemed to restrict a transfer to the Company.

(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 or other cessation 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, vesting or release from forfeiture of an Award or at the same time as payment of the exercise or purchase 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 (either by actual delivery or attestation) 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 used 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. The Participant's consent to such action shall be required unless (i) the Board determines that the action, taking into account any related action, does not materially and adversely affect the Participant's rights under the Plan or (ii) the change is permitted under Section 9.

(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 issued or 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 regulations 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 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.

(i) Performance Awards.

(1) Grants. Restricted Stock Awards and Other Stock-Based Awards under the Plan may be made subject to the achievement of performance goals pursuant to this Section 10(i) ("***Performance Awards***"). Subject to Section 10(i)(4), no Performance Awards shall vest prior to the first anniversary of the date of grant. Performance Awards can also provide for cash payments of up to $5,000,000 per calendar year per individual.

(2) Committee. Grants of Performance Awards to any Covered Employee (as defined below) intended to qualify as "performance-based compensation" under Section 162(m) ("***Performance-Based Compensation***") shall be made only by a Committee (or a subcommittee of a Committee) comprised solely of two or more directors eligible to serve on a committee making Awards qualifying as "performance-based compensation" under Section 162(m). In the case of such Awards granted to Covered Employees, references to the Board or to a Committee shall be treated as referring to such Committee (or subcommittee). "***Covered Employee***" shall mean any person who is, or whom the Committee, in its discretion, determines may be, a "covered employee" under Section 162(m)(3) of the Code.

(3) Performance Measures. For any Award that is intended to qualify as Performance-Based Compensation, the Committee shall specify that the degree of granting, vesting and/or payout shall be subject to the achievement of one or more objective performance measures established by the Committee, which shall be based on the relative or absolute attainment of specified levels of one or any combination of the following, which may be determined pursuant to generally accepted accounting principles ("***GAAP***") or on a non-GAAP basis, as determined by the Committee: scientific progress, product development progress, business development progress, including in-licensing, net income/(loss), earnings/(loss) before or after discontinued operations, interest, taxes, depreciation and/or amortization, operating profit/(loss) before or after discontinued operations and/or taxes, sales, sales growth, earnings growth, cash flow or cash position, gross margins, stock price, financings (issuance of debt or equity), refinancings, market share, return on sales, assets, equity or investment, improvement of financial ratings, achievement of balance sheet or income statement objectives or total stockholder return. Such goals may reflect absolute entity or business unit performance or a relative comparison to the performance of a peer group of entities or other external measure of the selected performance criteria and may be absolute in their terms or measured against or in relationship to other companies comparably, similarly or otherwise situated. The Committee

may specify that such performance measures shall be adjusted to exclude any one or more of (i) extraordinary items, (ii) gains or losses on the dispositions of discontinued operations, (iii) the cumulative effects of changes in accounting principles, (iv) the writedown of any asset, (vi) fluctuation in foreign currency exchange rates, and (vi) charges for restructuring and rationalization programs. Such performance measures: (i) may vary by Participant and may be different for different Awards; (ii) may be particular to a Participant or the department, branch, line of business, subsidiary or other unit in which the Participant works and may cover such period as may be specified by the Committee; and (iii) shall be set by the Committee within the time period prescribed by, and shall otherwise comply with the requirements of, Section 162(m). Awards that are not intended to qualify as Performance-Based Compensation may be based on these or such other performance measures as the Board may determine.

(4) Adjustments. Notwithstanding any provision of the Plan, with respect to any Performance Award that is intended to qualify as Performance-Based Compensation, the Committee may adjust downwards, but not upwards, the cash or number of shares payable pursuant to such Award, and the Committee may not waive the achievement of the applicable performance measures except in the case of the death or disability of the Participant or a change in control of the Company.

(5) Other. The Committee shall have the power to impose such other restrictions on Performance Awards as it may deem necessary or appropriate to ensure that such Awards satisfy all requirements for Performance-Based Compensation.

11. Miscellaneous

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award by virtue of the adoption of the Plan, 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 the Plan is approved by the Company's stockholders (the "***Effective Date***"). No Awards shall be granted under the Plan after the expiration of 10 years from the Effective Date, 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 (i) to the extent required by Section 162(m), no Award granted to a Participant that is intended to comply with Section 162(m) after the date of such amendment shall become exercisable, realizable or vested, as applicable to such Award, unless and until the Company's stockholders approve such amendment in the manner required by

Section 162(m); and (ii) no amendment that would require stockholder approval under the rules of the NASDAQ Stock Market may be made effective unless and until the Company's stockholders approve such amendment;. In addition, if at any time the approval of the Company's stockholders is required as to any other 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 11(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, taking into account any related action, does not materially and adversely affect the rights of Participants under the Plan. No Award shall be made that is conditioned upon stockholder approval of any amendment to the Plan unless the Award provides that (i) it will terminate or be forfeited if stockholder approval of such amendment is not obtained within no more than 12 months from the date of grant and (2) it may not be exercised or settled (or otherwise result in the issuance of Common Stock) prior to such stockholder approval.

(e) Authorization of Sub-Plans (including for Grants to non-U.S. Employees). The Board may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable securities, tax or other laws of various jurisdictions. The Board shall establish such sub-plans by adopting supplements to the 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 Section 409A of the Code. Except as provided in individual Award agreements initially or by amendment, if and to the extent (i) any portion of any payment, compensation or other benefit provided to a Participant pursuant to the Plan in connection with his or her employment termination constitutes "nonqualified deferred compensation" within the meaning of Section 409A of the Code and (ii) the Participant is a specified employee as defined in Section 409A(a)(2)(B)(i) of the Code, in each case as determined by the Company in accordance with its procedures, by which determinations the Participant (through accepting the Award) agrees that he or she is bound, such portion of the payment, compensation or other benefit shall not be paid before the day that is six months plus one day after the date of "separation from service" (as determined under Section 409A of the Code) (the "***New Payment Date***"), except as Section 409A of the Code may then permit. The aggregate of any payments that otherwise would have been paid to the Participant during the period between the date of separation from service and the New Payment Date shall be paid to the Participant in a lump sum on such New Payment Date, and any remaining payments will be paid on their original schedule.

The Company makes no representations or warranty and shall have no liability to the Participant or any other person if any provisions of or payments, compensation or other benefits under the Plan are determined to constitute nonqualified deferred compensation subject to Section 409A of the Code but do not to satisfy the conditions of that section.

(g) Limitations on Liability. Notwithstanding any other provisions of the Plan, no individual acting as a director, officer, employee or agent of the Company will be liable to any Participant, former Participant, spouse, beneficiary, or any other person for any claim, loss, liability, or expense incurred in connection with the Plan, nor will such individual be personally liable with respect to the Plan because of any contract or other instrument he or she executes in his or her capacity as a director, officer, employee or agent of the Company. The Company will indemnify and hold harmless each director, officer, employee or agent of the Company to whom any duty or power relating to the administration or interpretation of the Plan has been or will be delegated, against any cost or expense (including attorneys' fees) or liability (including any sum paid in settlement of a claim with the Board's approval) arising out of any act or omission to act concerning the Plan unless arising out of such person's own fraud or bad faith.

(h) 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 the State of Delaware.

VERASTEM, INC.

Incentive Stock Option Agreement
Granted Under 2012 Incentive Plan

1. Grant of Option.

This agreement evidences the grant by Verastem, 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 2012 Incentive Plan (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 "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 % of the original number of Shares on the first anniversary of the Vesting Commencement Date and as to an additional % of the original number of Shares at the end of each successive period following the first anniversary of the Vesting Commencement Date until the anniversary of the Vesting Commencement Date. For purposes of this Agreement, "Vesting Commencement Date" shall mean .

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 accompanied by a completed Notice of Stock Option Exercise in 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

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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 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's employment shall be considered to have been terminated for Cause if the Company determines, within 30 days after the Participant's resignation, that termination for Cause was warranted.

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4. Agreement in Connection with Public Offering.

The Participant agrees, in connection with an 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 FINRA Rule 2711(f)(4) 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.

5. 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.

6. Transfer Restrictions.

(a) 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.

(b) The Participant agrees that he or she will not transfer any Shares issued pursuant to the exercise of this option unless the transferee, as a condition to such transfer, delivers to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of Section 4 and Section 5; provided that such a written confirmation shall not be required with respect to (1) Section 4 after such provision has terminated in accordance with Section 4(g) or (2) Section 5 after the completion of the lock-up period in connection with the Company's initial underwritten public offering.

7. 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.

VERASTEM, INC.

By: _____

Name: _____
Title: _____

SIGNATURE PAGE TO INCENTIVE STOCK OPTION AGREEMENT

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 2012 Incentive Plan.

PARTICIPANT:

_____

Address: _____

_____

Exhibit A

NOTICE OF STOCK OPTION EXERCISE

Date: (1)

Verastem, Inc.
215 First Street, Suite 440
Cambridge, MA 02142

Attention: Treasurer

Dear Sir or Madam:

I am the holder of an Incentive Stock Option granted to me under the Verastem, Inc. 2012 Incentive Plan on (2) for the purchase of (3) shares of Common Stock of the Company at a purchase price of $ (4) per share.

I hereby exercise my option to purchase (5) shares of Common Stock, for which I have enclosed (6) in the amount of (7). Please register my stock certificate as follows:

Name(s): _____(8)

_____

Address: _____

Tax I.D. #: _____(9)

_____

(1) Enter the date of exercise.
(2) Enter the date of grant.
(3) Enter the total number of shares of Common Stock for which the option was granted.
(4) Enter the option exercise price per share of Common Stock.
(5) Enter the number of shares of Common Stock to be purchased upon exercise of all or part of the option.
(6) Enter "cash", "personal check" or if permitted by the option or Plan, "stock certificates No. XXXX and XXXX".
(7) Enter the dollar amount (price per share of Common Stock times the number of shares of Common Stock to be purchased), or the number of shares tendered. Fair market value of shares tendered, together with cash or check, must cover the purchase price of the shares issued upon exercise.
(8) Enter name(s) to appear on stock certificate: (a) Your name only; (b) Your name and other name (i.e., John Doe and Jane Doe, Joint Tenants With Right of Survivorship); or (c) In the case of a Nonstatutory option only, a Child's name, with you as custodian (i.e., Jane Doe, Custodian for Tommy Doe). Note: There may be income and/or gift tax consequences of registering shares in a Child's name.
(9) Social Security Number of Holder(s).

Very truly yours,

_____
(Signature)

VERASTEM, INC.

Nonstatutory Stock Option Agreement
Granted Under 2012 Incentive Plan

1. Grant of Option.

This agreement evidences the grant by Verastem, Inc. a Delaware corporation (the "Company"), on , 201 (the "Grant Date") to , an employee, consultant and/or 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 2012 Incentive Plan (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 "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 % of the original number of Shares on the first anniversary of the Vesting Commencement Date and as to an additional % of the original number of Shares at the end of each successive period following the first anniversary of the Vesting Commencement Date until the anniversary of the Vesting Commencement Date. For purposes of this Agreement, "Vesting Commencement Date" shall mean .

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 accompanied by a completed Notice of Stock Option Exercise in 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

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or she 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 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 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's employment or other relationship shall be considered to

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have been terminated for "Cause" if the Company determines, within 30 days after the Participant's resignation, that termination for Cause was warranted.

4. Agreement in Connection with Public Offering.

The Participant agrees, in connection with an 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 FINRA Rule 2711(f)(4) 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.

5. 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.

6. Transfer Restrictions.

(a) 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.

(b) The Participant agrees that he or she will not transfer any Shares issued pursuant to the exercise of this option unless the transferee, as a condition to such transfer, delivers to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of Section 4 and Section 5; provided that such a written confirmation shall not be required with respect to (1) Section 4 after such provision has terminated in accordance with Section 4(g) or (2) Section 5 after the completion of the lock-up period in connection with the Company's initial underwritten public offering.

7. 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.

VERASTEM, INC.

By: _____

Name: _____
Title: _____

SIGNATURE PAGE TO NONSTATUTORY STOCK OPTION AGREEMENT

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 2012 Incentive Plan.

PARTICIPANT:

_____

Address: _____

_____

Exhibit A

NOTICE OF STOCK OPTION EXERCISE

Date: (1)

Verastem, Inc.
215 First Street, Suite 440
Cambridge, MA 02142

Attention: Treasurer

Dear Sir or Madam:

I am the holder of a Nonstatutory Stock Option granted to me under the Verastem, Inc. 2012 Incentive Plan on (2) for the purchase of (3) shares of Common Stock of the Company at a purchase price of $ (4) per share.

I hereby exercise my option to purchase (5) shares of Common Stock, for which I have enclosed (6) in the amount of (7). Please register my stock certificate as follows:

Name(s): _____(8)

_____

Address: _____

Tax I.D. #: _____(9)

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(1) Enter the date of exercise.
(2) Enter the date of grant.
(3) Enter the total number of shares of Common Stock for which the option was granted.
(4) Enter the option exercise price per share of Common Stock.
(5) Enter the number of shares of Common Stock to be purchased upon exercise of all or part of the option.
(6) Enter "cash", "personal check" or if permitted by the option or Plan, "stock certificates No. XXXX and XXXX".
(7) Enter the dollar amount (price per share of Common Stock times the number of shares of Common Stock to be purchased), or the number of shares tendered. Fair market value of shares tendered, together with cash or check, must cover the purchase price of the shares issued upon exercise.
(8) Enter name(s) to appear on stock certificate: (a) Your name only; (b) Your name and other name (i.e., John Doe and Jane Doe, Joint Tenants With Right of Survivorship); or (c) In the case of a Nonstatutory option only, a Child's name, with you as custodian (i.e., Jane Doe, Custodian for Tommy Doe). Note: There may be income and/or gift tax consequences of registering shares in a Child's name.
(9) Social Security Number of Holder(s).

Very truly yours,

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(Signature)

Exhibit 10.5

AMENDED AND RESTATED EMPLOYMENT AGREEMENT

THIS AMENDED AND RESTATED EMPLOYMENT AGREEMENT (the "Agreement"), dated January 13, 2012, by and between Verastem, Inc. (the "Company"), a Delaware corporation with its principal place of business at 215 First Street, Suite 440, Cambridge, MA 02199, and Robert Forrester (the "Executive") of 346 Gay Street, Westwood, MA 02142 amends and restates in its entirety the Employment Agreement, dated as of March 3, 2011 between the Company and the Executive, as amended by a letter agreement between the Company and the Executive, dated December 31, 2011.

WHEREAS, the Executive is possessed of certain experience and expertise that qualify him to provide management direction and leadership for the Company.

WHEREAS, the Company wishes to employ the Executive to serve as its Chief Operating Officer.

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, the Company offers and the Executive accepts employment upon the following terms and conditions:

1. **Position and Duties.** Upon the terms and subject to the conditions set forth in this Agreement, the Company hereby offers and the Executive hereby accepts employment with the Company to serve as its Chief Operating Officer. The Executive agrees to perform the duties of the Executive's position and such other duties as reasonably may be assigned to the Executive from time to time. The Executive also agrees that while employed by the Company, the Executive will devote one hundred percent (100%) of the Executive's business time and the Executive's reasonable commercial efforts, business judgment, skill and knowledge exclusively to the advancement of the business and interests of the Company and to the discharge of the Executive's duties and responsibilities for it. The Executive may, however, continue his directorships with Myrexis, CPEX, MoMelan and Rhapsody Biologics but will transition to two directorships on or before March 3, 2012. The directorships may be replaced by other directorships with the prior approval of the Chairman or Chief Executive Officer of the Company with such approval not to be unreasonably withheld.

2. **Compensation and Benefits.** During the Executive's employment, as compensation for all services performed by the Executive for the Company and subject to his performance of his duties and responsibilities for the Company, pursuant to this Agreement or otherwise, the Company will provide the Executive the following pay.

(a) **Base Salary; Annual Bonus.** From the period beginning on March 3, 2011 until December 31, 2011, the Company will pay the Executive a base salary at the rate of Three Hundred Ten Thousand Dollars ($310,000) per

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year. Beginning on January 1, 2012, the Company will pay the Executive a base salary at the rate of Three Hundred Eighteen Thousand Dollars ($318,000) per year; provided that such amount shall be increased to a rate of Three Hundred Seventy Thousand Dollars ($370,000) upon the closing of an underwritten public offering by the Company of its stock prior to December 31, 2012 (a "2012 IPO"). Such amount shall be payable in accordance with the regular payroll practices of the Company for its executives, as in effect from time to time, and subject to increase from time to time by the Board in its discretion. The Executive shall have the opportunity to earn an annual target bonus measured against performance criteria to be determined by the Board (or a committee thereof) of 35% of the Executive's then current annual base salary, provided that such rate shall be increased to 40% of the Executive's then current annual base salary upon the closing of a 2012 IPO. Any bonus amount payable by the Company, if any, shall be paid no later than March 15 of the year following the year in which such bonus is earned.

(b) **Stock; RSUs.** Upon commencement of employment, the Executive will be entitled to purchase Four Hundred Twenty Thousand (448,000) shares of the Company's Common Stock (representing 128,000 shares after giving effect to a 1-for-3.5 reverse stock split of the Company's Common Stock effected on January 10, 2012 (the "Reverse Stock Split")) at a price per share of $0.08 (representing a price per share of $0.28 after giving effect to the Reverse Stock Split). Such shares of Common Stock shall be subject to the terms of a Restricted Stock Purchase Agreement which among other matters will provide for vesting. The shares of Common Stock will vest over four years at the rate of 25% on the one year anniversary of the Executive's date of hire subject to his continuing employment with the Company, and no shares shall vest before such date, except as provided below. The remaining shares shall vest quarterly over the next three years in equal monthly amounts subject to the Executive's continuing employment with the Company, except as provided below. Upon the closing a 2012 IPO, the Company shall grant to the Executive a restricted stock unit award (the "IPO RSU") representing the right to receive 142,857 shares of Company Common Stock (after giving effect to the Reverse Stock Split and subject to appropriate adjustment to reflect any stock dividend, stock split, combination or other similar recapitalization with respect to the Company's Common Stock) upon satisfaction of applicable vesting conditions, as set forth in the Restricted Stock Unit Agreement between the Company and the Executive.

(c) **Participation in Employee Benefit Plans.** The Executive will be entitled to participate in all Employee Benefit Plans from time to time in effect for employees of the Company generally, except to the extent such plans are duplicative of benefits otherwise provided the Executive under this Agreement (e.g., severance pay) or under any other agreement. The Executive's participation will be subject to the terms of the applicable plan

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documents and generally applicable Company policies. The Company may alter, modify, add to or delete its Employee Benefit Plans at any time as it, in its sole judgment, determines to be appropriate, without recourse by the Executive. For purposes of this Agreement, "Employee Benefit Plan" shall have the meaning ascribed to such term in Section 3(3) of ERISA, as amended from time to time.

(d) **Vacation.** The Executive will accrue three weeks paid vacation per year (or such greater amount as is generally made available to the Company's executive officers) in accordance with the Company's policies from time to time in effect and receive paid holidays in accordance with the Company holiday schedule. Vacation may be taken at such times and intervals as the Executive shall determine, subject to the business needs of the Company, and otherwise shall be subject to the policies of the Company, as in effect from time to time.

(e) **Business Expenses.** The Company will pay or reimburse the Executive for all reasonable business expenses incurred or paid by the Executive in the performance of his duties and responsibilities for the Company, subject to any maximum annual limit and other restrictions on such expenses set by the Company and to such reasonable substantiation and documentation as it may specify from time to time. Any such reimbursement that would constitute nonqualified deferred compensation subject to Section 409A shall be subject to the following additional rules: (i) no reimbursement of any such expense shall affect the Executive's right to reimbursement of any other such expense in any other

taxable year; (ii) reimbursement of the expense shall be made, if at all, not later than the end of the calendar year following the calendar year in which the expense was incurred; and (iii) the right to reimbursement shall not be subject to liquidation or exchange for any other benefit.

3. **Confidential Information, Non-Competition and Proprietary Information.** The Executive will execute the Company's standard Employee Non-Solicitation, Non-Competition, Confidential Information and Inventions Assignment Agreement. It is understood and agreed that breach by the Executive of the Employee Non-Solicitation, Non-Competition, Confidential Information and Inventions Assignment Agreement shall constitute a material breach of this Agreement.

4. **Termination of Employment.** The Executive's employment under this Agreement shall continue until terminated pursuant to this Section 4.

(a) The Company may terminate the Executive's employment for "Cause" upon written notice to the Executive setting forth in reasonable detail the nature of the Cause. The following, as determined by the Board in good faith and using its reasonable judgment, shall constitute Cause for termination: (i) the Executive's willful failure to perform, or gross

negligence in the performance of, the Executive's material duties and responsibilities to the Company and its Affiliates which is not remedied within thirty (30) days of written notice thereof; (ii) material breach by the Executive of any material provision of this Agreement or any other agreement with the Company or any of its Affiliates which is not remedied within thirty (30) days of written notice thereof; (iii) fraud, embezzlement or other dishonesty with respect to the Company and any of its Affiliates, taken as a whole, which, in the case of such other dishonesty, causes or could reasonably be expected to cause material harm to the Company and any of its Affiliates, taken as a whole; or (iv) the Executive's conviction of a felony.

(b) The Company may terminate the Executive's employment at any time other than for Cause upon one month's written notice to the Executive.

(c) The Executive may terminate his employment hereunder for Good Reason by providing notice to the Company of the condition giving rise to the Good Reason no later than thirty (30) days following the occurrence of the condition, by giving the Company thirty (30) days to remedy the condition and by terminating employment for Good Reason within thirty (30) days thereafter if the Company fails to remedy the condition. For purposes of this Agreement, "Good Reason" shall mean, without the Executive's consent, the occurrence of anyone or more of the following events: (i) material diminution in the nature or scope of the Executive's responsibilities, duties or authority, provided that in the absence of a Change of Control neither (x) the Company's failure to continue the Executive's appointment or election as a director or officer of any of its Affiliates nor (y) any diminution in the nature or scope of the Executive's responsibilities, duties or authority that is reasonably related to a diminution of the business of the Company or any of its Affiliates shall constitute "Good Reason"; (ii) a material reduction in the Executive's base salary other than one temporary reduction of not more than 120 days and not in excess of 20% of the Executive's base salary in connection with and in proportion to a general reduction of the base salaries of the Company's executive officers; (iii) failure of the Company to provide the Executive the salary or benefits in accordance with Section 2 hereof after thirty (30) days' notice during which the Company does not cure such failure; or (iv) relocation of the Executive's office more than forty (40) miles from the location of the Company's principal offices as of March 3, 2011.

(d) The Executive may terminate his employment with the Company other than for Good Reason at any time upon one month's notice to the Company.

(e) This Agreement shall automatically terminate in the event of the Executive's death during employment. The Company may terminate the Executive's employment, upon notice to the Executive, in the event the

Executive becomes disabled during employment and, as a result, is unable to continue to perform substantially all of his material duties and responsibilities under this Agreement for one-hundred and fifty (150) days during any period of three hundred and sixty-five (365) consecutive calendar days. If any question shall arise as to whether the Executive is disabled to the extent that the Executive is unable to perform substantially all of his material duties and responsibilities for the Company and its Affiliates, the Executive shall, at the Company's request and expense, submit to a medical examination by a physician selected by the Company to whom the Executive or the Executive's guardian, if any, has no reasonable objection to determine whether the Executive is so disabled and such determination shall for the purposes of this Agreement be conclusive of the issue. If such a question arises and the Executive fails to submit to the requested medical examination, the Company's determination of the issue shall be binding on the Executive.

5. **Severance Payments and Other Matters Related to Termination**.

(a) **Termination pursuant to Section 4(b) or 4(c)**.

i. Except as provided in Section 5(c) below, in the event of termination of the Executive's employment either by the Company other than for Cause pursuant to Section 4(a) of this Agreement or by the Executive for Good Reason pursuant to Section 4(c) of this Agreement: (a) *with respect to a termination prior to a 2012 IPO*, (I) all unvested options and restricted stock which, by their terms, vest only based on the passage of time (disregarding any acceleration of the vesting of such options or restricted stock based on individual or Company performance) shall vest as of the date of termination (notwithstanding anything to the contrary in Section 2(b) of this Agreement) with respect to an additional six (6) months of vesting; and (II) the Company shall pay the Executive's then-current annual base salary for a period of six (6) months in accordance with the Company's payroll practice then in effect, beginning on the Payment Commencement Date (as defined below); and (b) *with respect to a termination following a 2012 IPO*, (I) all unvested options, restricted stock, and restricted stock units (including the IPO RSUs) in each case that were granted prior to the 2012 IPO and which, by their terms, vest only based on the passage of time (disregarding any acceleration of the vesting of such options, restricted stock or restricted stock units based on individual or Company performance) shall vest as of the date of termination (notwithstanding anything to the contrary in Section 2(b) of this Agreement) with respect to an additional twelve (12) months of vesting; and (II) the Company shall pay the Executive's then-current annual base salary for a period of twelve (12) months

in accordance with the Company's payroll practice then in effect, beginning on the Payment Commencement Date.

ii. If the Executive is participating in the Company's group health plan and/or dental plan at the time the Executive's employment terminates, and the Executive exercises his right to continue participation in those plans under the federal law known as COBRA, or any successor law, the Company will pay or, at its option, reimburse the Executive, for the full premium cost of that participation for six (6) months following the date on which the Executive's employment with the Company terminates (twelve (12) months following such termination date in the case of a termination following a 2012 IPO) or, if earlier, until the date the Executive becomes eligible to enroll in the health (or, if applicable, dental) plan of a new employer, payable in accordance with regular payroll practices for benefits beginning on the Payment Commencement Date. The Company will also pay the Executive on the date of termination any base salary earned but not paid through the, date of termination and pay for any vacation time accrued but not used to that date. In addition, the Company will pay the Executive any bonus which has been awarded to the Executive, but not yet paid on the date of termination of his employment, payable in a lump sum on the Payment Commencement Date.

iii. Any obligation of the Company to provide the Executive severance payments or other benefits under this Section 5(a) is conditioned on the Executive's signing an effective and reasonable release of claims in the form provided by the Company (the "Employee Release") within 60 days following the termination of the Executive's employment, which release shall not apply to (i) claims for indemnification in the Executive's capacity as an officer or director of the Company under the Company's Certificate of Incorporation, By-laws or agreement, if any, providing for director or officer indemnification, (ii) rights to receive insurance payments under any policy maintained by the Company and (iii) rights to receive retirement benefits that are accrued and fully vested at the time of the Executive's termination and rights under such plans protected by ERISA . The severance payments shall be paid or commence on the first payroll period following the date the Employee Release becomes effective, but shall be retroactive to the date of termination (the "Payment Commencement Date"). Notwithstanding the foregoing, if the 60th day following the date of termination occurs in the calendar year following the calendar year of the termination, then the Payment Commencement Date shall be no earlier than January 1 of such subsequent calendar year. The Executive agrees to provide the Company prompt notice of the

Executive's eligibility to participate in the health plan and, if applicable, dental plan of any employer. The Executive further agrees to repay any overpayment of health benefit premiums made by the Company hereunder.

(b) **Termination other than pursuant to Section 4(b) or 4(c)**. In the event of any termination of the Executive's employment, other than a termination by the Company pursuant to Section 4(b) of this Agreement or a termination by the Executive for Good Reason pursuant to Section 4(c) of this Agreement, the Company will pay the Executive any base salary earned but not paid through the date of termination and pay for any vacation time accrued but not used to that date. In addition, the Company will pay the Executive any bonus which has been awarded to the Executive, but not yet paid on the date of termination of the Executive's employment. The Company shall have no other obligation to the Executive under this Agreement.

(c) **Upon a Change of Control**.

i. If, within ninety (90) days prior to a Change of Control or within one year (18 months following a 2012 IPO) following a Change of Control (as defined in Section 6 hereof), the Company or any successor thereto terminates the Executive's employment other than for Cause, or the Executive terminates his employment for Good Reason, then, in lieu of any payments to the Executive or on the Executive's behalf under Section 5(a) hereof, (i) all of the Executive's then remaining unvested options, restricted stock and restricted stock units which, by their terms, vest only based on the passage of time (disregarding any acceleration of the vesting of such options, restricted stock or restricted stock units based on individual or Company performance) shall automatically vest as of the date of termination (notwithstanding anything to the contrary in Section 2(b) of this Agreement) and (ii) the Company shall pay, within thirty (30) days of such termination, a lump sum equal to the Executive's then-current annual base salary for a period of twelve (12) months; provided, however, that if such termination occurs prior to a Change of Control, such severance payments shall be made at the time and in the manner set forth in Section 5(a)(i) during the period beginning on the date of termination through the date of the Change of Control with any severance remaining to be paid under this Section 5(c)(i) payable in a lump sum on the closing date of the Change of Control; and,

ii. The Company and the Executive agree that in the event it shall be determined that any of the payments or benefits received or to be received by the Executive in connection with a Change of Control or the Executive's termination from employment would be subject

to the excise tax imposed by Section 4999 of the Code, together with any interest or penalties imposed with respect to such excise tax (the "Excise Tax"), then the Executive shall be entitled to promptly receive from the Company an additional lump sum cash payment (the "Gross-Up Payment") in an amount such that, after payment by the Executive of all taxes related to such payments and benefits, including any income taxes and the Excise Tax imposed upon the Gross-Up Payment, the Executive retains an amount of the Gross-Up Payment equal to the Excise Tax imposed upon such payments and benefits. Any such Gross-Up Payment shall be made to the Executive within 60 days following the date that the Excise Tax is due.

iii. If the Executive is participating in the Company's group health plan and/or dental plan at the time the Executive's employment terminates (whether such termination is as described in (i) above), and the Executive exercises his right to continue participation in those plans under the federal law known as COBRA, or any successor law, the Company will pay or, at its option, reimburse the Executive, for the full premium cost of that participation for twelve (12) months following the date on which the Executive's employment with the Company terminates or, if earlier, until the date the Executive becomes eligible to enroll in the health (or, if applicable, dental) plan of a new employer, with such amount payable on a pro-rata basis in accordance with the Company's regular payroll practices for benefits. The Company will also pay the Executive on the date of termination any base salary earned but not paid through the, date of termination and pay for any vacation time accrued but not used to that date. In addition, the Company will pay the Executive any bonus which has been awarded to the Executive, but not yet paid on the date of termination of his employment, payable within 30 days of the date of termination.

(d) Except for any right the Executive may have under applicable law to continue participation in the Company's group health and dental plans under COBRA, or any successor law, benefits shall terminate in accordance with the terms of the applicable benefit plans based on the date of

termination of the Executive's employment, without regard to any continuation of base salary or other payment to the Executive following termination.

(e) Provisions of this Agreement shall survive any termination if so provided in this Agreement or if necessary or desirable to accomplish the purposes of other surviving provisions, including without limitation the Executive's obligations under Section 3 of this Agreement and under the Employee Non-Solicitation, Non-Competition, Confidential Information and Inventions Assignment Agreement. The obligation of the Company to

make payments to the Executive or on the Executive's behalf under Section 5 of this Agreement is expressly conditioned upon the Executive's continued full performance of the Executive's obligations under Section 3 hereof, under the Employee Non-Solicitation, Non-Competition, Confidential Information and Inventions Assignment Agreement to be executed herewith, and under any subsequent agreement between the Executive and the Company or any of its Affiliates relating to confidentiality, non-competition, proprietary information or the like.

6. **Definitions.** For purposes of this agreement; the following definitions apply:

"Affiliates" means all persons and entities directly or indirectly controlling, controlled by or under common control with the Company, where control may be by management authority, equity interest or otherwise.

"Change of Control" shall mean (i) the acquisition of beneficial ownership (as defined in Rule 13d-3 under the Exchange Act) directly or indirectly by any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act), of securities of the Company representing a majority or more of the combined voting power of the Company's then outstanding securities, other than an acquisition of securities for investment purposes pursuant to a bona fide financing of the Company; (ii) a merger or consolidation of the Company with any other corporation in which the holders of the voting securities of the Company prior to the merger or consolidation do not own more than 50% of the total voting securities of the surviving corporation; or (iii) the sale or disposition by the Company of all or substantially all of the Company's assets other than a sale or disposition of assets to an Affiliate of the Company or a holder of securities of the Company; notwithstanding the foregoing, no transaction or series of transactions shall constitute a Change of Control unless such transaction or series of transactions constitutes a "change in control event" within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i).

"Person" means an individual, a corporation, an association, a partnership, an estate, a trust and any other entity or organization, other than the Company or any of its Affiliates.

7. **Conflicting Agreements.** The Executive hereby represents and warrants that his signing of this Agreement and the performance of his obligations under it will not breach or be in conflict with any other agreement to which the Executive is a party or is bound and that the Executive is not now subject to any covenants against competition or similar covenants or any court order that could affect the performance of the Executive's obligations under this Agreement. The Executive agrees that he will not disclose to or use on behalf of the Company any proprietary information of a third party without that party's consent.

8. **Withholding; Other Tax Matters.** Anything to the contrary notwithstanding, (a) all payments required to be made by the Company hereunder to Executive shall

be subject to the withholding of such amounts, if any, relating to tax and other payroll deductions as the Company may reasonably determine it should withhold pursuant to any applicable law or regulation, and (b) all severance payments and benefits payable pursuant to Sections 5(a) and 5(c) hereof shall be subject to the terms and conditions set forth on Exhibit A attached hereto

9. **Assignment.** Neither the Executive nor the Company may make any assignment of this Agreement or any interest in it, by operation of law or otherwise, without the prior written consent of the other; provided, however, that the Company may assign its rights and obligations under this Agreement without the Executive's consent to one of its Affiliates or to any Person with whom the Company shall hereafter affect a reorganization, consolidate with, or merge into or to whom it transfers all or substantially all of its properties or assets. This Agreement shall inure to the benefit of and be binding upon the Executive and the Company, and each of our respective successors, executors, administrators, heirs and permitted assigns.

10. **Severability.** If any portion or provision of this Agreement shall to any extent be declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, shall not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

11. **Miscellaneous.** This Agreement, together with the Employee Non-Solicitation, Non-Competition, Confidential Information and Inventions Assignment Agreement, sets forth the entire agreement between the Executive and the Company and replaces all prior communications, agreements and understandings, written or oral, with respect to the terms and conditions of the Executive's employment. This Agreement may not be modified or amended, and no breach shall be deemed to be waived, unless agreed to in writing by the Executive and an expressly authorized representative of the Board. The headings and captions in this Agreement are for convenience only and in no way define or describe the scope or content of any provision of this Agreement. This Agreement may be executed in two or more counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument. This is a Massachusetts contract and shall be governed and construed in accordance with the laws of the Commonwealth of Massachusetts, without regard to the conflict-of-laws principles thereof.

12. **Notices.** Any notices provided for in this Agreement shall be in writing and shall be effective when delivered in person, consigned to a reputable national courier service for overnight delivery or deposited in the United States mail, postage prepaid, and addressed to the Executive at the Executive's last known address on the books of the Company or, in the case of the Company, to it by notice to the Chairman of the Board of Directors, c/o Verastem, Inc. at its principal place of

business, or to such other addressees) as either party may specify by notice to the other actually received.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, this Agreement has been executed as a sealed instrument by the Company, by its duly authorized representative, and by the Executive, as of the date first stated above.

THE EXECUTIVE	THE COMPANY
/s/ Robert Forrester	/s/ Christoph Westphal
Robert Forrester	Christoph Westphal President and Chief Executive Officer

Exhibit A

Payments Subject to Section 409A

1. Subject to this Exhibit A, any severance payments that may be due under the Agreement shall begin only upon the date of the Executive's "separation from service" (determined as set forth below) which occurs on or after the termination of Executive's employment. The following rules shall apply with respect to distribution of the severance payments, if any, to be provided to Executive under the Agreement, as applicable:

(a) It is intended that each installment of the severance payments under the Agreement provided under shall be treated as a separate "payment" for purposes of Section 409A. Neither the Company nor Executive shall have the right to accelerate or defer the delivery of any such payments except to the extent specifically permitted or required by Section 409A.

(b) If, as of the date of Executive's "separation from service" from the Company, Executive is not a "specified employee" (within the meaning of Section 409A), then each installment of the severance payments shall be made on the dates and terms set forth in the Agreement.

(c) If, as of the date of Executive's "separation from service" from the Company, Executive is a "specified employee" (within the meaning of Section 409A), then:

(i) Each installment of the severance payments due under the Agreement that, in accordance with the dates and terms set forth herein, will in all circumstances, regardless of when Executive's 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 Section 1.409A-1(b)(4) to the maximum extent permissible under Section 409A and shall be paid on the dates and terms set forth in the Agreement; and

(ii) Each installment of the severance payments due under the Agreement that is not described in this Exhibit A, Section 1(c)(i) and that would, absent this subsection, be paid within the six-month period following Executive'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, Executive'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 Executive'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 payments 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 Section 1.409A-1(b)(9)(iii) must be paid no later than the last day of Executive's second taxable year following the taxable year in which the separation from service occurs.

2. The determination of whether and when Executive'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 Section 1.409A-1(h). Solely for purposes of this Exhibit A, Section 2, "Company" shall include all persons with whom the Company would be considered a single employer under Section 414(b) and 414(c) of the Code.

3. The Company makes no representation or warranty and shall have no liability to Executive or to any other person if any of the provisions of the Agreement (including this Exhibit) are determined to constitute deferred compensation subject to Section 409A but that do not satisfy an exemption from, or the conditions of, that section.

AMENDED AND RESTATED EMPLOYMENT AGREEMENT

THIS AMENDED AND RESTATED EMPLOYMENT AGREEMENT (the "Agreement"), dated January 13, 2012, by and between Verastem, Inc. (the "Company"), a Delaware corporation with its principal place of business at 215 First Street, Cambridge, MA 02142, and Jonathan Pachter (the "Executive") of 2 Barley Land, Wayland, MA 01778 amends and restates in its entirety the Employment Agreement, dated as of June 26, 2011 between the Company and the Executive, as amended by a letter agreement between the Company and the Executive, dated December 31, 2011.

WHEREAS, the Executive has certain experience and expertise that qualify him to provide management direction and leadership for the Company.

WHEREAS, the Company wishes to employ the Executive to serve as its Vice President, Head of Research.

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, the Company offers and the Executive accepts employment upon the following terms and conditions:

1. **Position and Duties.** Upon the terms and subject to the conditions set forth in this Agreement, the Company hereby offers and, effective as of a date to be mutually agreed by the Executive and the Company (the "Commencement Date"), the Executive hereby accepts employment with the Company to serve as its Vice President, Head of Research, reporting initially to the Company's Chief Executive Officer. The Executive agrees to perform the duties of the Executive's position and such other duties as reasonably may be assigned to the Executive from time to time. The Executive also agrees that while employed by the Company, the Executive will devote one hundred percent (100%) of the Executive's business time and the Executive's reasonable commercial efforts, business judgment, skill and knowledge exclusively to the advancement of the business and interests of the Company and to the discharge of the Executive's duties and responsibilities for it. Prior to the Commencement Date the Executive shall have no duties or responsibilities for the Company and shall not participate in any respect in the Company's business or strategic planning. Prior to the date that is six months after the termination of the Executive's employment by Astellas US Group and its affiliates (the "Astellas IP Provision Termination Date"), the Company and the Executive shall agree on a schedule of the Executive's duties and responsibilities to take effect from and after the Astellas IP Provision Termination Date.

2. **Compensation and Benefits.** During the Executive's employment, as compensation for all services performed by the Executive for the Company and subject to his performance of his duties and responsibilities for the Company, pursuant to this Agreement or otherwise, the Company will provide the Executive the following pay and benefits:

(a) **Base Salary; Annual Bonus.** From the period beginning on June 26, 2011 until December 31, 2011, the Company will pay the Executive a starting base salary at the

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rate of Two Hundred Eighty Thousand Dollars ($280,000) per year. Beginning on January 1, 2012, the Company will pay the Executive a base salary at the rate of Two Hundred Eighty Four Thousand Dollars ($284,000) per year; provided that such amount shall be increased to a rate of Three Hundred Thousand Dollars ($300,000) upon the closing of an underwritten public offering by the Company of its stock prior to December 31, 2012 (a "2012 IPO"). Such amount shall be payable in accordance with the regular payroll practices of the Company for its executives, as in effect from time to time, and subject to increase from time to time by the Board in its discretion. The Executive shall have the opportunity to earn an annual target bonus measured against performance criteria to be determined by the Board (or a committee thereof) of 30% of the Executive's then current annual base salary, provided that such rate shall be increased to 35% of the Executive's then-current annual base salary upon the closing of a 2012 IPO. Any bonus amount payable by the Company, if any, shall be paid no later than March 15 of the year following the year in which such bonus is earned.

(b) **Stock; RSUs.** In connection with the Executive's hire, the Executive will be granted a stock option to purchase Two Hundred Forty Thousand (240,000) shares of the Company's Common Stock (representing 68,571 shares after giving effect to a 1-for-3.5 reverse stock split of the Company's Common Stock effected on January 10, 2012 (the "Reverse Stock Split")) at fair market value on the date of grant as determined by the Board of Directors. Such stock option shall be subject to the terms of a Stock Option Agreement which among other matters will provide for vesting. The stock option will vest over four years at the rate of 25% on the one year anniversary of the Executive's date of hire subject to his continuing employment with the Company, and no shares shall vest before such date, except as provided below. The remaining shares shall vest quarterly over the next three years in equal quarterly amounts subject to the Executive's continuing employment with the Company, except as provided below. Upon the closing of a 2012 IPO, the Company shall grant to the Executive a restricted stock unit award (the "IPO RSU") representing the right to receive 85,714 shares of Company Common Stock (after giving effect to the Reverse Stock Split and subject to appropriate adjustment to reflect any stock dividend, stock split, combination or other similar recapitalization with respect to the Company's Common Stock) upon satisfaction of applicable vesting conditions, as set forth in the RSU Agreement between the Company and the Executive.

(c) **Signing Bonus.** The Company will pay the Executive a one-time signing bonus of Fifty Thousand Dollars ($50,000) within thirty (30) days of the Commencement Date.

(d) **Relocation Expense Reimbursement.** The Company will reimburse the Executive for the reasonable moving expenses associated with the move of household goods and furniture to the greater Boston metropolitan area up to Thirty Thousand Dollars ($30,000).

(e) **Participation in Employee Benefit Plans.** The Executive will be entitled to participate in all Employee Benefit Plans from time to time in effect for employees of the Company generally, except to the extent such plans are duplicative of benefits otherwise provided the Executive under this Agreement (e.g., severance pay) or under any other agreement. The Executive's participation will be subject to the terms of the applicable plan documents and generally applicable Company policies. The Company may alter, modify, add to or delete its Employee Benefit Plans at any time as it, in its sole judgment, determines to be appropriate, without recourse by the Executive. For purposes of this Agreement, "Employee Benefit Plan"

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shall have the meaning ascribed to such term in Section 3(3) of ERISA, as amended from time to time.

(d) **Vacation.** The Executive will accrue three weeks paid vacation per year (or such greater amount as is generally made available to the Company's executive officers) in accordance with the Company's policies from time to time in effect and receive paid holidays in accordance with the Company holiday schedule. Vacation may be taken at such times and intervals as the Executive shall determine, subject to the business needs of the Company, and otherwise shall be subject to the policies of the Company, as in effect from time to time.

(e) **Business Expenses.** The Company will pay or reimburse the Executive for all reasonable business expenses incurred or paid by the Executive in the performance of his duties and responsibilities for the Company, subject to any maximum annual limit and other restrictions on such expenses set by the Company

and to such reasonable substantiation and documentation as it may specify from time to time. Any such reimbursement that would constitute nonqualified deferred compensation subject to Section 409A shall be subject to the following additional rules: (i) no reimbursement of any such expense shall affect the Executive's right to reimbursement of any other such expense in any other taxable year; (ii) reimbursement of the expense shall be made, if at all, not later than the end of the calendar year following the calendar year in which the expense was incurred; and (iii) the right to reimbursement shall not be subject to liquidation or exchange for any other benefit.

3. **Confidential Information, Non-Competition and Proprietary Information.** The Executive will execute the Company's standard Employee Non-Solicitation, Non-Competition, Confidential Information and Inventions Assignment Agreement**.** It is understood and agreed that breach by the Executive of the Employee Non-Solicitation, Non-Competition, Confidential Information and Inventions Assignment Agreement shall constitute a material breach of this Agreement.

4. **Termination of Employment.** The Executive's employment under this Agreement shall continue until terminated pursuant to this Section 4.

(a) The Company may terminate the Executive's employment for "Cause" upon written notice to the Executive received at least five business days prior to such termination setting forth in reasonable detail the nature of the Cause**.** The following, as determined by the Board in good faith and using its reasonable judgment, shall constitute Cause for termination: (i) the Executive's willful failure to perform, or gross negligence in the performance of, the Executive's material duties and responsibilities to the Company and its Affiliates which is not remedied within thirty (30) days of written notice thereof; (ii) material breach by the Executive of any material provision of this Agreement or any other agreement with the Company or any of its Affiliates which is not remedied within thirty (30) days of written notice thereof; (iii) fraud, embezzlement or other dishonesty with respect to the Company and any of its Affiliates, taken as a whole, which, in the case of such other dishonesty, causes or could reasonably be expected to cause material harm to the Company and any of its Affiliates, taken as a whole; or (iv) the Executive's conviction of a felony.

(b) The Company may terminate the Executive's employment at any time other than for Cause upon one month's written notice to the Executive.

(c) The Executive may terminate his employment hereunder for Good Reason by providing notice to the Company of the condition giving rise to the Good Reason no later than thirty (30) days following the occurrence of the condition, by giving the Company thirty (30) days to remedy the condition and by terminating employment for Good Reason within thirty (30) days thereafter if the Company fails to remedy the condition. For purposes of this Agreement, "Good Reason" shall mean, without the Executive's consent, the occurrence of anyone or more of the following events: (i) material diminution in the nature or scope of the Executive's responsibilities, duties or authority, provided that in the absence of a Change of Control neither (x) the Company's failure to continue the Executive's appointment or election as a director or officer of any of its Affiliates nor (y) any diminution in the nature or scope of the Executive's responsibilities, duties or authority that is reasonably related to a diminution of the business of the Company or any of its Affiliates shall constitute "Good Reason"; (ii) a material reduction in the Executive's base salary other than one temporary reduction of not more than 120 days and not in excess of 20% of the Executive's base salary in connection with and in proportion to a general reduction of the base salaries of the Company's executive officers; (iii) failure of the Company to provide the Executive the salary or benefits in accordance with Section 2 hereof after thirty (30) days' notice during which the Company does not cure such failure; or (iv) relocation of the Executive's office more than forty (40) miles from the location of the Company's principal offices as of the Commencement Date.

(d) The Executive may terminate his employment with the Company other than for Good Reason at any time upon one month's notice to the Company.

(e) This Agreement shall automatically terminate in the event of the Executive's death during employment. The Company may terminate the Executive's employment, upon notice to the Executive, in the event the Executive becomes disabled during employment and, as a result, is unable to continue to perform substantially all of his material duties and responsibilities under this Agreement for one-hundred and fifty (150) days during any period of three hundred and sixty-five (365) consecutive calendar days**.** If any question shall arise as to whether the Executive is disabled to the extent that the Executive is unable to perform substantially all of his material duties and responsibilities for the Company and its Affiliates, the Executive shall, at the Company's request and expense, submit to a medical examination by a physician selected by the Company to whom the Executive or the Executive's guardian, if any, has no reasonable objection to determine whether the Executive is so disabled and such determination shall for the purposes of this Agreement be conclusive of the issue**.** If such a question arises and the Executive fails to submit to the requested medical examination, the Company's determination of the issue shall be binding on the Executive.

5. **Severance Payments and Other Matters Related to Termination**.

(a) **Termination pursuant to Section 4(b) or 4(c).**

i. Except as provided in Section 5(c) below, in the event of termination of the Executive's employment either by the Company other than for Cause pursuant

to Section 4(a) of this Agreement or by the Executive for Good Reason pursuant to Section 4(c) of this Agreement, (a) *with respect to a termination prior to a 2012 IPO*, (I) all unvested options and restricted stock which, by their terms, vest only based on the passage of time (disregarding any acceleration of the vesting of such options or restricted stock based on individual or Company performance) shall vest as of the date of termination (notwithstanding anything to the contrary in Section 2(b) of this Agreement) with respect to an additional six (6) months of vesting; and (II) the Company shall pay the Executive's then-current annual base salary for a period of six (6) months in accordance with the Company's payroll practice then in effect, beginning on the Payment Commencement Date (as defined below); and (b) *with respect to a termination following a 2012 IPO*, (I) all unvested options, restricted stock, and restricted stock units (including the IPO RSUs) in each case that were granted prior to the 2012 IPO and which, by their terms, vest only based on the passage of time (disregarding any acceleration of the vesting of such options, restricted stock or restricted stock units based on individual or Company performance) shall vest as of the date of termination (notwithstanding anything to the contrary in Section 2(b) of this Agreement) with respect to an additional nine (9) months of vesting; and (II) the Company shall pay the Executive's then-current annual base salary for a period of nine (9) months in accordance with the Company's payroll practice then in effect, beginning on the Payment Commencement Date.

ii. If the Executive is participating in the Company's group health plan and/or dental plan at the time the Executive's employment terminates, and the Executive exercises his right to continue participation in those plans under the federal law known as COBRA, or any successor law, the Company will pay or, at its option, reimburse the Executive, for the full premium cost of that participation for six (6) months following the date on which the Executive's employment with the Company terminates (nine (9) months following such termination date in the case of a termination following a 2012 IPO) or, if earlier, until the date the Executive becomes eligible to enroll in the health (or, if applicable, dental) plan of a new employer, payable in accordance with regular payroll practices for benefits beginning on the Payment Commencement Date. The Company will also pay the Executive on the date of termination any base salary earned but not paid through the, date of termination and pay for any vacation time accrued but not used to that date. In addition, the Company will pay the Executive any bonus which has been awarded to the Executive, but not yet paid on the date of termination of his employment, payable in a lump sum on the Payment Commencement Date.

iii. Any obligation of the Company to provide the Executive severance payments or other benefits under this Section 5(a) is conditioned on the Executive's signing an effective and reasonable release of claims in the form provided by the Company (the "Employee Release") within 60 days following the

termination of the Executive's employment, which release shall not apply to (i) claims for indemnification in the Executive's capacity as an officer or director of the Company under the Company's Certificate of Incorporation, By-laws or agreement, if any, providing for director or officer indemnification, (ii) rights to receive insurance coverage and payments under any policy maintained by the Company and (iii) rights to receive retirement benefits that are accrued and fully vested at the time of the Executive's termination and rights under such plans protected by ERISA. Any severance payments to be made in the form of salary continuation pursuant to the terms of this Agreement shall be payable in accordance with the normal payroll practices of the Company, and will begin at the Company's next regular payroll period following the effective date of the Employee Release, but

shall be retroactive to the date of termination. The Executive agrees to provide the Company prompt notice of the Executive's eligibility to participate in the health plan and, if applicable, dental plan of any employer. The Executive further agrees to repay any overpayment of health benefit premiums made by the Company hereunder.

(b) **Termination other than pursuant to Section 4(b) or 4(c).** In the event of any termination of the Executive's employment, other than a termination by the Company pursuant to Section 4(b) of this Agreement or a termination by the Executive for Good Reason pursuant to Section 4(c) of this Agreement, the Company will pay the Executive any base salary earned but not paid through the date of termination and pay for any vacation time accrued but not used to that date. In addition, the Company will pay the Executive any bonus which has been awarded to the Executive, but not yet paid on the date of termination of the Executive's employment. The Company shall have no other payment obligations to the Executive under this Agreement.

(c) **Upon a Change of Control.**

i. If, within ninety (90) days prior to the Change of Control or within one year (18 months following a 2012 IPO) following a Change of Control (as defined in Section 6 hereof), the Company or any successor thereto terminates the Executive's employment other than for Cause, or the Executive terminates his employment for Good Reason, then, in lieu of any payments to the Executive or on the Executive's behalf under Section 5(a) hereof, (i) all of the Executive's then remaining unvested options, restricted stock and restricted stock units which, by their terms, vest only based on the passage of time (disregarding any acceleration of the vesting of such options, restricted stock or restricted stock units based on individual or Company performance) shall automatically vest as of the date of termination (notwithstanding anything to the contrary in Section 2(b) of this Agreement) and (ii) the Company shall pay, within thirty (30) days of such termination, a lump sum payment equal to the Executive's then-current annual base salary for a period of six (6) months (twelve (12) months following a 2012 IPO); provided, however, that if such termination occurs prior to a Change of Control, such severance payments shall be made at the time and in the manner set forth in Section 5(a)(i) during the period beginning on the date of termination through the date of the Change of Control with any severance remaining to be paid under this Section 5(c)(i) payable in a lump sum on the closing date of the Change of Control; and,

ii. If the Executive is participating in the Company's group health plan and/or dental plan at the time the Executive's employment terminates (whether such termination is as described in (i) above), and the Executive exercises his right to continue participation in those plans under the federal law known as COBRA, or any successor law, the Company will pay or, at its option, reimburse the Executive, for the full premium cost of that participation for six (6) months (twelve (12) following a 2012 IPO) following the date on which the Executive's employment with the Company terminates or, if earlier, until the date the Executive becomes eligible to enroll in the health (or, if applicable, dental) plan of a new employer, with such amount payable on a pro-rata basis in accordance with the Company's regular payroll practices for benefits. The Company will also pay the Executive on the date of termination any base salary earned but not paid through the, date of termination and pay for any vacation time accrued but not used to that date. In addition, the Company will pay the Executive

any bonus which has been awarded to the Executive, but not yet paid on the date of termination of his employment, payable within 30 days of the date of termination.

(d) Except for any right the Executive may have under applicable law to continue participation in the Company's group health and dental plans under COBRA, or any successor law, benefits shall terminate in accordance with the terms of the applicable benefit plans based on the date of termination of the Executive's employment, without regard to any continuation of base salary or other payment to the Executive following termination.

(e) Provisions of this Agreement shall survive any termination if so provided in this Agreement or if necessary or desirable to accomplish the purposes of other surviving provisions, including without limitation the Executive's obligations under Section 3 of this Agreement and under the Employee Non-Solicitation, Non- Competition, Confidential Information and Inventions Assignment Agreement. The obligation of the Company to make payments to the Executive or on the Executive's behalf under Section 5 of this Agreement is expressly conditioned upon the Executive's continued full performance of the Executive's obligations under Section 3 hereof, under the Employee Non-Solicitation, Non-Competition, Confidential Information and Inventions Assignment Agreement to be executed herewith, and under any subsequent agreement between the Executive and the Company or any of its Affiliates relating to confidentiality, non-competition, proprietary information or the like; provided however that any future agreement that Executive is asked to execute does not impose any greater restrictions or obligations upon Executive or upon his post-termination activities than the agreements signed at the outset of his employment with the Company.

6. **Definitions.** For purposes of this agreement; the following definitions apply:

"Affiliates" means all persons and entities directly or indirectly controlling, controlled by or under common control with the Company, where control may be by management authority, equity interest or otherwise.

"Change of Control" shall mean (i) the acquisition of beneficial ownership (as defined in Rule 13d-3 under the Exchange Act) directly or indirectly by any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act), of securities of the Company representing a majority or more of the combined voting power of the Company's then outstanding securities, other than an acquisition of securities for investment purposes pursuant to a bona fide financing of the Company; (ii) a merger or consolidation of the Company with any other corporation in which the holders of the voting securities of the Company prior to the merger or consolidation do not own more than 50% of the total voting securities of the surviving corporation; or (iii) the sale or disposition by the Company of all or substantially all of the Company's assets other than a sale or disposition of assets to an Affiliate of the Company or a holder of securities of the Company; notwithstanding the foregoing, no transaction or series of transactions shall constitute a Change of Control unless such transaction or series of transactions constitutes a "change in control event" within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i).

"Person" means an individual, a corporation, an association, a partnership, an estate, a trust and any other entity or organization, other than the Company or any of its Affiliates.

7. **Conflicting Agreements.** The Executive hereby represents and warrants that his signing of this Agreement and the performance of his obligations under it will not breach or be in conflict with any other agreement to which the Executive is a party or is bound and that the Executive is not now subject to any covenants against competition or similar covenants or any court order that could affect the performance of the Executive's obligations under this Agreement. The Executive agrees that he will not disclose to or use on behalf of the Company any proprietary information of a third party without that party's consent. The Company acknowledges its receipt from Executive of a copy of the Astellas US Group and its Affiliated Entities Confidentiality and Intellectual Property Development Agreement dated March 21, 2011 (the "Astellas Agreement"), and the Executive and the Company agree that the Executive shall not at any time be assigned any duties or responsibilities shall would constitute a breach by the Executive of the Astellas Agreement.

8. **Withholding; Other Tax Matters.** Anything to the contrary notwithstanding, (a) all payments required to be made by the Company hereunder to Executive shall be subject to the withholding of such amounts, if any, relating to tax and other payroll deductions as the Company may reasonably determine it should withhold pursuant to any applicable law or regulation, and (b) all severance payments and benefits payable pursuant to Sections 5(a) and 5(c) hereof shall be subject to the terms and conditions set forth on Exhibit A attached hereto.

9. **Assignment.** Neither the Executive nor the Company may make any assignment of this Agreement or any interest in it, by operation of law or otherwise, without the prior written consent of the other; provided, however, that the Company may assign its rights and obligations under this Agreement without the Executive's consent to one of its Affiliates or to any Person with whom the Company shall hereafter affect a reorganization, consolidate with, or merge into or to whom it transfers all or substantially all of its properties or assets. This Agreement shall inure to the benefit of and be binding upon the Executive and the Company, and each of our respective successors, executors, administrators, heirs and permitted assigns.

10. **Severability.** If any portion or provision of this Agreement shall to any extent be declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, shall not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

11. **Miscellaneous.** This Agreement, together with the Employee Non-Solicitation, Non-Competition, Confidential Information and Inventions Assignment Agreement, sets forth the entire agreement between the Executive and the Company and replaces all prior communications, agreements and understandings, written or oral, with respect to the terms and conditions of the Executive's employment. This Agreement may not be modified or amended, and no breach shall be deemed to be waived, unless agreed to in writing by the Executive and an expressly authorized representative of the Board**.** The headings and captions in this Agreement are for convenience only and in no way define or describe the scope or content of any provision of this Agreement. This Agreement may be executed in two or more counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument. This

is a Massachusetts contract and shall be governed and construed in accordance with the laws of the Commonwealth of Massachusetts, without regard to the conflict-of-laws principles thereof.

12. **Notices.** Any notices provided for in this Agreement shall be in writing and shall be effective when delivered in person, consigned to a reputable national courier service for overnight delivery or deposited in the United States mail, postage prepaid, and addressed to the Executive at the Executive's last known address on the books of the Company or, in the case of the Company, to it by notice to the Chairman of the Board of Directors, c/o Verastem, Inc. at its principal place of business, or to such other addressees) as either party may specify by notice to the other actually received.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, this Agreement has been executed as a sealed instrument by the Company, by its duly authorized representative, and by the Executive, as of the date first stated above.

THE EXECUTIVE	THE COMPANY
/s/ Jonathan Pachter	/s/ Robert Forrester
Jonathan Pachter	Robert Forrester Chief Operating Officer

Exhibit A

Payments Subject to Section 409A

1. Subject to this Exhibit A, any severance payments that may be due under the Agreement shall begin only upon the date of the Executive's "separation from service" (determined as set forth below) which occurs on or after the termination of Executive's employment. The following rules shall apply with respect to distribution of the severance payments, if any, to be provided to Executive under the Agreement, as applicable:

(a) It is intended that each installment of the severance payments under the Agreement provided under shall be treated as a separate "payment" for purposes of Section 409A. Neither the Company nor Executive shall have the right to accelerate or defer the delivery of any such payments except to the extent specifically permitted or required by Section 409A.

(b) If, as of the date of Executive's "separation from service" from the Company, Executive is not a "specified Executive" (within the meaning of Section 409A), then each installment of the severance payments shall be made on the dates and terms set forth in the Agreement.

(c) If, as of the date of Executive's "separation from service" from the Company, Executive is a "specified Executive" (within the meaning of Section 409A), then:

(i) Each installment of the severance payments due under the Agreement that, in accordance with the dates and terms set forth herein, will in all circumstances, regardless of when Executive's 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 Section 1.409A-1(b)(4) to the maximum extent permissible under Section 409A and shall be paid on the dates and terms set forth in the Agreement; and

(ii) Each installment of the severance payments due under the Agreement that is not described in this Exhibit A, Section 1(c)(i) and that would, absent this subsection, be paid within the six-month period following Executive'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, Executive'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 Executive'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 payments 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 Section 1.409A-1(b)(9)(iii) must be paid no later than the last day of Executive's second taxable year following the taxable year in which the separation from service occurs.

2. The determination of whether and when Executive'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 Section 1.409A-1(h). Solely for purposes of this Exhibit A, Section 2, "Company" shall include all persons with whom the Company would be considered a single employer under Section 414(b) and 414(c) of the Code.

3. The Company makes no representation or warranty and shall have no liability to Executive or to any other person if any of the provisions of the Agreement (including this Exhibit) are determined to constitute deferred compensation subject to Section 409A but that do not satisfy an exemption from, or the conditions of, that section.

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Asterisks denote omissions.

WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH

and

VERASTEM, INC.

AMENDED AND RESTATED EXCLUSIVE PATENT LICENSE AND TANGIBLE PROPERTY AGREEMENT

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WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH

AMENDED AND RESTATED EXCLUSIVE PATENT LICENSE AND TANGIBLE PROPERTY AGREEMENT

This Amended and Restated Agreement (the "AGREEMENT"), effective as of January 11, 2012 (the "RESTATEMENT DATE"), is by and between the **Whitehead Institute for Biomedical Research** ("WHITEHEAD"), a Delaware corporation, with a principal office at Nine Cambridge Center, Cambridge, Massachusetts 02142, and **Verastem, Inc.** ("COMPANY"), a Delaware corporation, with a principal place of business at 215 First Street, Suite 440, Cambridge, MA 02142.

RECITALS

WHEREAS, WHITEHEAD, the Massachusetts Institute of Technology, a Massachusetts corporation with a principal office at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 ("M.I.T.") and the President and Fellows of Harvard College, an educational and charitable corporation existing under the laws and the

constitution of the Commonwealth of Massachusetts, having a place of business at Holyoke Center, Suite 727, 1350 Massachusetts Avenue, Cambridge, Massachusetts 02138 ("HARVARD") are the owners of certain PATENT RIGHTS (as later defined herein) relating to WHITEHEAD Case No. **[**]** (M.I.T. Case No. **[**]**; HARVARD Case No. **[**]**, and WHITEHEAD, M.I.T. and HARVARD have the right to grant licenses under said PATENT RIGHTS;

WHEREAS, the PATENT RIGHTS and TANGIBLE PROPERTY (as later defined herein) were developed in part at the Broad Institute of M.I.T. and HARVARD, having a principal place of business at Seven Cambridge Center, Cambridge, Massachusetts, 02142 ("BROAD");

WHEREAS BROAD was a department of M.I.T. and HARVARD at the time of development of the PATENT RIGHTS and TANGIBLE PROPERTY and is now an independent research institution, and BROAD is not a party to this Agreement;

WHEREAS, M.I.T. and HARVARD have authorized WHITEHEAD to act as their sole and exclusive agent for the purposes of licensing the PATENT RIGHTS and TANGIBLE

PROPERTY, and M.I.T. and HARVARD have authorized WHITEHEAD to enter into this Agreement on their behalf;

WHEREAS, WHITEHEAD, M.I.T. and HARVARD desire to have the PATENT RIGHTS and TANGIBLE PROPERTY developed and commercialized to benefit the public and WHITEHEAD is willing to grant a license thereunder;

WHEREAS, COMPANY has represented to WHITEHEAD, to induce WHITEHEAD to enter into this Agreement, that COMPANY shall commit itself to a program of exploiting the PATENT RIGHTS and TANGIBLE PROPERTY for the purpose of promoting public utilization; and

WHEREAS, COMPANY desires to obtain a license under the PATENT RIGHTS and TANGIBLE PROPERTY upon the terms and conditions hereinafter set forth.

WHEREAS, WHITEHEAD and COMPANY entered into a License Agreement, with an effective date of October 13, 2010 (the "ORIGINAL EFFECTIVE DATE"), for the PATENT RIGHTS and TANGIBLE PROPERTY (the "ORIGINAL LICENSE AGREEMENT");

WHEREAS, WHITEHEAD and COMPANY now wish to amend and restate the Original License Agreement herein;

NOW, THEREFORE, WHITEHEAD and COMPANY hereby agree as follows:

1. DEFINITIONS

1.1 "AFFILIATE" will 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 "CORPORATE PARTNER" will mean:

(i) any entity which agrees to compensate COMPANY or AFFILIATE or SUBLICENSEE for COMPANY's or AFFILIATE's or SUBLICENSEE's practice of the PATENT RIGHTS, LICENSED PRODUCTS, IDENTIFIED PRODUCTS, and/or LICENSED PROCESSES on behalf of or in collaboration with such entity, including without limitation for discovery and development activities for LICENSED PRODUCTS, IDENTIFIED PRODUCTS, and/or LICENSED PROCESSES;

(ii) any entity, other than an AFFILIATE or SUBLICENSEE, which sells, distributes, imports, or exports LICENSED PRODUCTS or IDENTIFIED PRODUCTS under an agreement with COMPANY, AFFILIATE, or SUBLICENSEE.

Any entity which meets the foregoing criteria and also receives a sublicense of the PATENT RIGHTS and/or TANGIBLE PROPERTY will be considered a SUBLICENSEE, and not a CORPORATE PARTNER, for the purpose of this Agreement.

1.3 "FIELD" will mean all human therapeutic, prognostic, and diagnostic uses. For the avoidance of doubt, FIELD specifically excludes the sale and/or distribution of reagents for research use (other than the provision of reagents in furtherance of the research, development, manufacture, or commercialization of LICENSED PRODUCTS, LICENSED PROCESSES, or IDENTIFIED PRODUCTS as part of a collaboration agreement with a SUBLICENSEE, or CORPORATE PARTNER). For avoidance of doubt, research use excludes (i) the high-throughput commercial discovery or commercial development of pharmaceuticals (including high-throughput screening of pharmaceutical candidates for human therapeutic, prognostic, and diagnostic uses); and (ii) services conducted to discover or develop pharmaceuticals. The foregoing definition is intended to define research use solely for purposes of this Section 1.3 and shall not limit the definition of research use anywhere else in this Agreement (including Section 2.7).

1.4 "IDENTIFIED PRODUCT" will mean (i) any product identified, selected, or determined by COMPANY or an AFFILIATE or SUBLICENSEE to have activity or utility through the use of LICENSED PRODUCTS, LICENSED PROCESSES, and/or TANGIBLE PROPERTY, or (ii) any product identified, selected, or determined to have activity or utility on a

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target, including but not limited to cellular receptors, transcription factors, and autocrine/paracrine signaling molecules, identified by COMPANY or AFFILIATE or SUBLICENSEE through the use of LICENSED PRODUCTS, LICENSED PROCESSES, and/or TANGIBLE PROPERTY.

For any IDENTIFIED PRODUCT which also falls within the definition of LICENSED PRODUCT, such IDENTIFIED PRODUCT will be deemed a LICENSED PRODUCT for the purpose of this Agreement.

1.5 "IND" will mean, with respect to a particular LICENSED PRODUCT or IDENTIFIED PRODUCT, an Investigational New Drug application submitted to the FDA, or a corresponding application filed with any other regulatory agency, seeking approval to begin tests of a new drug in human subjects.

1.6 "LICENSED PROCESS" will mean any process that, in whole or in part: (i) absent the license granted hereunder, would infringe one or more VALID CLAIMS; or (ii) uses a LICENSED PRODUCT as defined in Section 1.7(i).

1.7 "LICENSED PRODUCT" will mean any product that, in whole or in part:

(i) absent the license granted hereunder, would infringe one or more VALID CLAIMS; or

(ii) is manufactured by using or that, when used, practices a LICENSED PROCESS as defined in Section 1.6 (i); or

(iii) is manufactured by using or incorporates TANGIBLE PROPERTY.

For clarity, for the purpose of defining "manufactured" (as used above), it is understood that the testing or screening of compounds for activity or utility, other than in quality control and/or quality assurance, does not constitute "manufacturing" of such compounds.

1.8 "LICENSED SERVICE" will mean any service COMPANY or AFFILIATE or SUBLICENSEE performs for a third party that cannot be developed or performed, in whole or in part, without COMPANY using a LICENSED PRODUCT or IDENTIFIED PRODUCT or TANGIBLE PROPERTY, or performing a LICENSED PROCESS.

1.9 "NDA" will mean a New Drug Application submitted to the FDA seeking approval to market and sell a LICENSED PRODUCT or IDENTIFIED PRODUCT in the United States of America, or a corresponding application filed with any other regulatory agency seeking approval to market and sell a LICENSED PRODUCT or IDENTIFIED PRODUCT in a country in the TERRITORY.

1.10 "NET SALES" will mean the gross amount billed by COMPANY, AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS for LICENSED PRODUCTS and IDENTIFIED PRODUCTS less the following:

(i) customary trade, quantity, or cash discounts to the extent actually allowed and taken;

(ii) amounts repaid or credited by reason of rejection or return;

(iii) discounts or rebates or other payments required by law to be made under Medicaid, Medicare or other governmental special medical assistance programs, to the extent actually allowed and taken;

(iv) 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 IDENTIFIED PRODUCT, which is paid by or on behalf of COMPANY or its AFFILIATES or SUBLICENSEES or CORPORATE PARTNERS; and

(v) outbound transportation costs prepaid or allowed and costs of insurance in transit.

No deductions will be made for commissions paid to individuals whether they are with independent sales agencies or regularly employed by COMPANY, AFFILIATES, SUBLICENSEES, or CORPORATE PARTNERS and on its payroll, or for cost of collections. NET SALES will occur on the date of billing for a LICENSED PRODUCT or IDENTIFIED PRODUCT. If a LICENSED PRODUCT or IDENTIFIED PRODUCT is billed at a discounted price that is substantially lower than the customary price charged by COMPANY (taking into account customary pricing charged for a governmental entity or in various countries), or billed

for non-cash consideration (whether or not at a discount), NET SALES will be calculated based on the non-discounted amount of the LICENSED PRODUCT or IDENTIFIED PRODUCT charged to an independent third party during the same REPORTING PERIOD or, in the absence of such sales, on the fair market value of the LICENSED PRODUCT or IDENTIFIED PRODUCT.

Non-monetary consideration will not be accepted by COMPANY, any AFFILIATE, or any SUBLICENSEE for any commercial sale or other commercial disposition of LICENSED PRODUCT or IDENTIFIED PRODUCT without the prior written consent of WHITEHEAD.

1.11 "PATENT CHALLENGE" will mean a legal or administrative challenge to the validity, patentability, or enforceability of any of the PATENT RIGHTS (as defined below) or otherwise opposing any of the PATENT RIGHTS through a legal or administrative proceeding.

1.12 "PATENT RIGHTS" will mean:

(i) the United States and international patents listed on Appendix A;

(ii) the United States and international patent applications and/or provisional applications listed on Appendix A and the resulting patents;

(iii) any patent applications resulting from the provisional applications listed on Appendix A, and any divisionals, 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;

(iv) any patents resulting from reissues, reexaminations, or extensions (and their relevant international equivalents) of the patents described in (i), (ii), and (iii) above; and

(v) international (non-United States) patent applications and provisional applications filed after the ORIGINAL EFFECTIVE DATE and the

relevant international equivalents to divisionals, 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 (i), (ii), (iii), and (iv) above, and the resulting patents.

1.13 "PHASE I TRIAL" will mean a clinical study of a LICENSED PRODUCT or IDENTIFIED PRODUCT that generally provides for the first introduction of such product into a human subject, with the primary purpose of determining safety, metabolism and pharmacokinetic properties and clinical pharmacology of such product.

1.14 "PHASE II TRIAL" will mean a clinical study of a LICENSED PRODUCT or IDENTIFIED PRODUCT conducted to obtain preliminary data on the effectiveness of the LICENSED PRODUCT or IDENTIFIED PRODUCT for a particular indication or indications in human subjects with the disease or condition and the possible short-term side effects and risks associated with the LICENSED PRODUCT or IDENTIFIED PRODUCT.

1.15 "PHASE III TRIAL" will mean a clinical study of a LICENSED PRODUCT or IDENTIFIED PRODUCT in human subjects for the purpose of gathering the definitive information about efficacy, dosage, and safety in the proposed therapeutic indication that is needed for the FDA or other appropriate regulatory agency to evaluate the overall benefit-risk relationship of the LICENSED PRODUCT or IDENTIFIED PRODUCT prior to granting (or denying) approval to market the drug.

1.16 "REPORTING PERIOD" will begin on the first day of each calendar quarter and end on the last day of such calendar quarter.

1.17 "SERVICE INCOME" will mean:

(i) the gross amount billed by COMPANY, AFFILIATES, and SUBLICENSEES for the performance of LICENSED PROCESSES, and

(ii) without duplication, any payments received by COMPANY and AFFILIATES , and SUBLICENSEES in consideration of the performance

of LICENSED PROCESSES including without limitation upfront or periodic fees, milestone payments, and other payments.

For the purpose of Section 1.17 (i), billing will occur on the earlier of the receipt of payment or [**] days after the date of billing. If LICENSED PROCESSES are performed or provided at a discounted price that is substantially lower than the customary price charged by COMPANY, or distributed for non-cash consideration (whether or not at a discount), SERVICE INCOME will be calculated based on the non-discounted amount charged to an independent third party during the same REPORTING PERIOD or, in the absence of such sales, on the fair market value for the performance of LICENSED PROCESSES.

No deductions will be made for commissions paid to individuals whether they are with independent sales agencies or regularly employed by COMPANY, AFFILIATES, or SUBLICENSEES and on its payroll, or for cost of collections.

Non-monetary consideration will not be accepted by COMPANY, any AFFILIATE, or any SUBLICENSEE for the commercial performance of any LICENSED PROCESS without the prior written consent of WHITEHEAD.

1.18 "SUBLICENSE INCOME"

(a) "SUBLICENSE INCOME" will mean the following:

(i) all payments that COMPANY receives from a SUBLICENSEE in consideration of the sublicense of the rights granted to COMPANY under Section 2.1, including without limitation license fees, milestone payments, license maintenance fees, and other payments; and

(ii) all payments that COMPANY and AFFILIATES and SUBLICENSEES receive from a CORPORATE PARTNER in consideration of any of the rights described in Section 1.2, including without limitation fees, milestone payments, agreement maintenance fees, and other payments.

(b) "SUBLICENSE INCOME" specifically excludes the following:

(i) royalties on NET SALES;

(ii) payments made by SUBLICENSEE or CORPORATE PARTNER as consideration for the issuance of equity or debt securities of COMPANY at Fair-Market Value, as defined in Section 4.1(h) ("Equity"); provided that, if a SUBLICENSEE or CORPORATE PARTNER pays more than Fair-Market Value for equity or debt securities, then the portion in excess of Fair-Market Value will be considered SUBLICENSE INCOME;

(iii) payments to COMPANY or AFFILIATE from a SUBLICENSEE or CORPORATE PARTNER for the purposes of funding (or reimbursing for work to-be conducted in the future) the costs of bona fide research and development of LICENSED PRODUCTS and/or IDENTIFIED PRODUCTS and that are expressly intended only to fund or pay for (1) the purchase or use of equipment, supplies, products or services, or (2) the use of employees and/or consultants to achieve a research or development goal, or (3) for funding clinical trials, as indicated by their inclusion as specific line items (or by other language reasonably conveying such express intent) in a written agreement between COMPANY (or AFFILIATE) and the SUBLICENSEE, or between COMPANY (or AFFILIATE or SUBLICENSEE) and CORPORATE PARTNER.

Non-monetary consideration will not be accepted by COMPANY or an AFFILIATE for any sublicense of the PATENT RIGHTS or any corporate partnership related to the PATENT RIGHTS without the prior written consent of WHITEHEAD. In the event that non-monetary consideration is received for any sublicense of the PATENT RIGHTS or any corporate partnership related to the PATENT RIGHTS, SUBLICENSE INCOME will be calculated based on the fair market value of such non-monetary consideration (including all elements of such consideration), as determined by the parties in good faith. Consideration for any and all sublicenses of the PATENT RIGHTS or any corporate partnership related to the PATENT

RIGHTS, including royalty consideration, will be on commercially reasonable terms and conditions consistent with amounts paid for similar technology in the industry at the time such agreement is executed.

1.19 "SUBLICENSEE" will mean any non-AFFILIATE sublicensee of the rights granted COMPANY under Section 2.1.

1.20 "TANGIBLE PROPERTY" will mean the materials described in Appendix D whether by itself or incorporated into another, and any progeny and unmodified derivatives.

1.21 "TERM" will mean the term of this Agreement, which will commence on the ORIGINAL EFFECTIVE DATE and will remain in effect 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.

1.22 "TERRITORY" will mean worldwide.

1.23 "VALID CLAIM" will mean a claim of the following:

(i) an issued patent under the PATENT RIGHTS which has not been revoked or held unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal and which has not been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise; or

(ii) a pending patent application under the PATENT RIGHTS which has not been abandoned or finally disallowed without the possibility of appeal or re-filing of such application and which has not been pending for more than [**] years from the date such application was first examined and has been prosecuted in good faith.

2. GRANT OF RIGHTS

2.1 License Grants.

(a) PATENT RIGHTS. Subject to the terms of this Agreement, WHITEHEAD hereby grants to COMPANY and its AFFILIATES for the TERM a 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.

(b) TANGIBLE PROPERTY. Subject to the terms of this Agreement, WHITEHEAD hereby grants to COMPANY and its AFFILIATES for the TERM a royalty-bearing nonexclusive license to use the TANGIBLE PROPERTY 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. Legal title to the TANGIBLE PROPERTY will remain with WHITEHEAD, M.I.T. and/or HARVARD.

2.2 Exclusivity.

(a) PATENT RIGHTS. Subject to the terms of this Agreement, in order to establish an exclusive period for COMPANY, WHITEHEAD agrees that it shall not grant (and has not granted as of the ORIGINAL EFFECTIVE DATE, except as provided in Section 2.7) any other license under the PATENT RIGHTS to make, have made, use, sell, lease, import or sublicense LICENSED PRODUCTS in the FIELD in the TERRITORY or to develop, perform or sublicense LICENSED PROCESSES in the FIELD in the TERRITORY during the TERM, unless the conditions set forth in Section 2.4 occur and are not remedied by the COMPANY (herein defined as "EXCLUSIVE PERIOD").

(b) Consequences of PATENT CHALLENGE. In the event that (1) COMPANY or AFFILIATES brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD, M.I.T. and/or

HARVARD (except as required under a court order or subpoena) or (2) a SUBLICENSEE brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD,M.I.T. and/or HARVARD (except as required under a court order or subpoena) and COMPANY does not terminate such SUBLICENSEE's sublicense upon notice by WHITEHEAD, then in either case ((1) or (2)), COMPANY agrees that (i) WHITEHEAD, in its sole discretion, may choose at any time following the initiation of such PATENT CHALLENGE to grant one or more licenses to third parties under the PATENT RIGHTS to discover, develop, make, have made, use, 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; (ii) the EXCLUSIVE PERIOD will immediately terminate; and (iii) COMPANY and AFFILIATES shall immediately destroy all TANGIBLE PROPERTY and COMPANY shall confirm such destruction in writing to WHITEHEAD (and COMPANY shall contractually obligate its SUBLICENSEES to do the same).

2.3 Sublicenses.

(a) PATENT RIGHTS. COMPANY will have the right to grant sublicenses of its rights under Section 2.1(a). COMPANY shall incorporate terms and conditions into its sublicense agreements sufficient to enable COMPANY to comply with this Agreement. COMPANY shall also include provisions in all sublicenses to provide that in the event that SUBLICENSEE brings a PATENT CHALLENGE against WHITEHEAD, M.I.T. and/or HARVARD or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD, M.I.T. and/or HARVARD (except as required under a court order or subpoena), then COMPANY may terminate the sublicense. COMPANY shall promptly furnish WHITEHEAD with a fully signed photocopy of any sublicense agreement.

(b) SURVIVAL OF SUBLICENSE AGREEMENT. Upon termination of this Agreement for any reason (other than by COMPANY pursuant to Section 13.1), each sublicense granted by COMPANY to a SUBLICENSEE not then in default of its sublicense agreement with COMPANY will survive such termination as a direct license from WHITEHEAD, provided that (i) such direct license shall be subject to the same non-financial terms and conditions as those in this Agreement; (ii) such SUBLICENSEE

(or if there is at such time more than one such sublicensee, such SUBLICENSEES severally and jointly) shall be required to reimburse patent costs pursuant to Section 4.1(a) and to make any annual fees due pursuant to Section 4.1(b); and (iii) each such SUBLICENSEE shall be required to make one of the following, at WHITEHEAD's one-time written election promptly following the termination of this Agreement: (1) any monetary payment(s) that, had this Agreement not been terminated, COMPANY would have been required to make under this Agreement as a result of the activities of such SUBLICENSEE or (2) any monetary payments(s) that, had this Agreement not been terminated, SUBLICENSEE would have been required to make to COMPANY under the sublicense agreement between COMPANY and SUBLICENSEE as a result of the activities of such SUBLICENSEE; provided, however, that WHITEHEAD shall only be permitted to make the election specified in subsection (2) above if WHITEHEAD agrees in writing to be bound by all of COMPANY's obligations in the applicable sublicense agreement, as though WHITEHEAD were COMPANY. Each such SUBLICENSEE shall be an intended third-party beneficiary of the preceding sentence.

(c) TANGIBLE PROPERTY. COMPANY will have the right to grant sublicenses of its rights under Section 2.1(b) only in the context of a bona fide written agreement with one or more third parties for the development of LICENSED PRODUCTS and/or LICENSED PROCESSES, which also includes a sublicense to COMPANY's rights under the PATENT RIGHTS.

2.4 Mandatory Sublicensing.

(a) Beginning [**] years from the ORIGINAL EFFECTIVE DATE, if WHITEHEAD or M.I.T. or HARVARD or BROAD or COMPANY receives a bona fide request from a third party for a sublicense to the PATENT RIGHTS to develop, make, have made, use, sell, offer to sell, lease, and import a LICENSED PRODUCT or LICENSED PROCESS, which proposed product or process ("PROPOSED PRODUCT") is not directly competitive with any LICENSED PRODUCT, IDENTIFIED PRODUCT or LICENSED PROCESS then offered for sale or in bona fide development, as evidenced by at least [**] FTEs working on it over the previous [**] months by COMPANY (or AFFILIATE or SUBLICENSEE) , then COMPANY shall enter into good-faith

negotiations toward granting at least a non-exclusive sublicense, limited to the proposed field only, to such third party for such third party's PROPOSED PRODUCT. As an alternative to negotiating a sublicense to a third party, COMPANY (or its AFFILIATES or SUBLICENSEES) may submit to WHITEHEAD, within [**] months after such third party's request for a sublicense, a plan for prompt and diligent development of the PROPOSED PRODUCT, including a commitment to commercially reasonable development milestones. If WHITEHEAD approves this plan, such approval not to be unreasonably withheld, no third-party sublicense will be required for each such PROPOSED PRODUCT pursuant to this Section 2.4 (a), and Section 2.4 (b) below shall not apply.

(b) If COMPANY has not granted a sublicense to the third party under Section 2.4 (a) within [**] months after receiving the request in writing, and if WHITEHEAD has not granted COMPANY a waiver of this requirement as provided for in Section 2.4 (a), then WHITEHEAD will have the right to grant a license to the third party. The [**]-month period during which COMPANY may grant a sublicense, prior to WHITEHEAD assuming such right, will be extended an additional [**] months if, at the end of the initial [**]-month period, both COMPANY and the prospective third-party sublicensee assert to WHITEHEAD that they are engaged in good-faith negotiations toward the completion of a sublicense agreement. Should WHITEHEAD grant a license under this Section 2.4 (b), the field of use licensed in such license agreement will be excluded from the FIELD, and all of COMPANY's rights in the excluded field of use will terminate. COMPANY will have the right to review the license grant to ensure that it does not interfere with indications within the FIELD under development by COMPANY, AFFILIATE or SUBLICENSEE.

2.5 Required agreement for CORPORATE PARTNERS. COMPANY acknowledges that the value of PATENT RIGHTS and TANGIBLE PROPERTY is measured in part by its value in identifying IDENTIFIED PRODUCTS. Therefore, COMPANY agrees that COMPANY, AFFILIATES, and SUBLICENSEES shall not sell, transfer, or otherwise make available IDENTIFIED PRODUCTS to any CORPORATE PARTNER and shall not provide services or proprietary information with respect to any IDENTIFIED PRODUCTS to any

CORPORATE PARTNER, unless such CORPORATE PARTNER agrees to the provisions substantially as set forth in Appendix E ("Corporate Partner Agreement"). COMPANY shall promptly furnish WHITEHEAD with a fully signed photocopy of any Corporate Partner Agreement.

2.6 U.S. Manufacturing. To the extent required by applicable law or regulation, COMPANY agrees that any LICENSED PRODUCTS used or sold in the United States will be manufactured substantially in the United States, unless a waiver of such obligation is obtained from the required government agency. If COMPANY desires to seek a waiver of such requirements, WHITEHEAD agrees to provide reasonable assistance in the application process for such waiver, upon request of COMPANY.

2.7 Retained Rights.

(a) WHITEHEAD, M.I.T. and HARVARD. WHITEHEAD, M.I.T. and HARVARD each retain the right to practice under the PATENT RIGHTS and TANGIBLE PROPERTY for research, teaching, and educational purposes.

(b) Academic and Not-For-Profit Research Institutes. WHITEHEAD, M.I.T. and HARVARD each retain the right to grant licenses to academic and not-for-profit research institutes to practice under the PATENT RIGHTS and TANGIBLE PROPERTY for research, teaching, and educational purposes.

(c) 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.

2.8 Ownership of Modifications. WHITEHEAD, M.I.T. and/or HARVARD, as applicable, retain ownership of any TANGIBLE PROPERTY, whether or not included or incorporated within modifications.

2.9 Transfer to Third Parties. COMPANY agrees not to transfer the TANGIBLE PROPERTY to any other parties, except to permitted SUBLICENSEES as provided herein.

2.10 No Additional Rights. Nothing in this Agreement will be construed to confer any rights upon COMPANY by implication, estoppel, or otherwise as to any technology or patent rights of WHITEHEAD, M.I.T., HARVARD or BROAD or any other entity other than the PATENT RIGHTS, regardless of whether such technology or patent rights will be dominant or subordinate to any PATENT RIGHTS.

2.11 Marketing of Screening Discoveries. WHITEHEAD will notify COMPANY concurrently with marketing to third parties if and when WHITEHEAD seeks to license any Screening Discoveries (described below) developed or conceived within [**] years of the ORIGINAL EFFECTIVE DATE, and COMPANY will be on equal footing with other parties to negotiate a license thereto subject to any funding obligations. For the purpose of this Section 2.11, "Screening Discoveries" will mean the identification of biological or chemical compounds that selectively target cancer stem cell-like cells generated by induction through an epithelial-mesenchymal transition provided that such identification was made solely in the WHITEHEAD laboratory of Robert A. Weinberg.

3. COMPANY DILIGENCE OBLIGATIONS

3.1 COMPANY shall use commercially reasonable efforts, or shall cause its AFFILIATES and SUBLICENSEES to use commercially reasonable efforts, to develop LICENSED PRODUCTS or LICENSED PROCESSES and to introduce LICENSED PRODUCTS or LICENSED PROCESSES into the commercial market; thereafter, COMPANY or AFFILIATES or SUBLICENSEES shall make LICENSED PRODUCTS or LICENSED PROCESSES reasonably available to the public. Specifically, COMPANY shall fulfill the following obligations:

(i) Within [**] days after the ORIGINAL EFFECTIVE DATE, COMPANY shall furnish WHITEHEAD with a written research and development plan describing the major tasks to be achieved in order to bring to market a LICENSED PRODUCT , IDENTIFIED PRODUCT or LICENSED PROCESS, specifying the number of staff and other resources to be devoted to such commercialization effort;

(ii) Within [**] days after the end of each calendar year, COMPANY shall furnish WHITEHEAD 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, IDENTIFIED PRODUCTS or LICENSED PROCESSES. The report will also contain a discussion of intended efforts and sales projections, if any, for the year in which the report is submitted;

(iii) Within [**] days after the ORIGINAL EFFECTIVE DATE, COMPANY shall raise at least Five-Million dollars ($5,000,000) in cash in exchange for COMPANY's Capital Stock (it being understood that the foregoing requirement shall be deemed to be satisfied by the equity financing of the COMPANY contemplated as of the ORIGINAL EFFECTIVE DATE, which involves a Twelve-Million dollar ($12,000,000) cash commitment from investors over two tranches, provided that a first tranche payment of at least Three Million dollars ($3,000,000) is made no later than [**] days after the ORIGINAL EFFECTIVE DATE);

(iv) Within [**] months after the ORIGINAL EFFECTIVE DATE, COMPANY or AFFILIATE or SUBLICENSEE shall [**];

(v) Within [**] years after the ORIGINAL EFFECTIVE DATE, COMPANY or AFFILIATE or SUBLICENSEE shall [**]; and

(vi) Within [**] years after the ORIGINAL EFFECTIVE DATE, COMPANY or AFFILIATE or SUBLICENSEE shall [**].

In the event that COMPANY or AFFILIATE or SUBLICENSEE, alone or together, has not performed one or more of Sections 3.1(i) through (vi), then WHITEHEAD may treat such failure as a material breach in accordance with Section 13.3(b).

3.2 If, in any calendar year, COMPANY or AFFILIATE or SUBLICENSEE, alone or together, has performed any one of the following, then COMPANY will be deemed to have complied with COMPANY's obligations under this Section 3.2:

(i) beginning in calendar year 2011, has expended a minimum of [**] Dollars ($[**]) annually for [**] of a LICENSED PRODUCT, IDENTIFIED PRODUCT or LICENSED PROCESS;

(ii) is actively [**] with respect to a LICENSED PRODUCT or IDENTIFIED PRODUCT;

(iii) is actively [**] with respect to a LICENSED PRODUCT or IDENTIFIED PRODUCT;

(iv) is actively [**] with respect to a LICENSED PRODUCT or IDENTIFIED PRODUCT;

(v) [**] with respect to a LICENSED PRODUCT or IDENTIFIED PRODUCT within [**] of a [**];

(vi) [**] LICENSED PRODUCT or IDENTIFIED PRODUCT;

(vii) is [**] for a LICENSED PRODUCT or IDENTIFIED PRODUCT;

(viii) [**] for a LICENSED PRODUCT or IDENTIFIED PRODUCT;

(ix) a LICENSED PRODUCT or IDENTIFIED PRODUCT is [**].

In the event that none of Sections 3.2(i) through (ix) have been performed by COMPANY or AFFILIATES or SUBLICENSEES, alone or together, during a calendar year, then WHITEHEAD may treat such failure as a material breach in accordance with Section 13.3(b).

3.3 Beginning [**] years from the ORIGINAL EFFECTIVE DATE, if COMPANY, AFFILIATES, or SUBLICENSEES are not actively conducting biological or chemical high-throughput screens using a LICENSED PRODUCT or LICENSED PROCESS to identify IDENTIFIED COMPOUNDS (as evidenced by the performance of such high-throughput screen by COMPANY, AFFILIATES, or SUBLICENSEES within a rolling [**]-month period beginning on the [**] anniversary of the ORIGINAL EFFECTIVE DATE) , then WHITEHEAD may choose to grant one or more licenses to third parties under the PATENT RIGHTS, including without limitation, 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 the EXCLUSIVE PERIOD under Section 2.2 will immediately terminate. Notwithstanding the foregoing, the loss of exclusivity will not apply to claims in the PATENT RIGHTS directed towards the use of specific compounds for the treatment of human diseases that are being actively developed by COMPANY (or any other specific compounds that the COMPANY has a bona fide plan to develop as backups (as defined in Section 4.1(c)(1)) to one or more of such actively developed compounds) as evidenced in its Reports to WHITEHEAD.

4. ROYALTIES AND PAYMENT TERMS

4.1 Consideration for Grant of Rights.

(a) License Issue Fee and Patent Cost Reimbursement. COMPANY shall pay to WHITEHEAD, no later than [**] days after the ORIGINAL EFFECTIVE DATE, a license issue fee of [**] dollars ($[**]), and, such amounts required as reimbursement in accordance with Section 6.3, relating to actual expenses incurred in connection with obtaining the PATENT RIGHTS. These payments are nonrefundable.

(b) License Maintenance Fees. COMPANY shall pay to WHITEHEAD the following license maintenance fees on January 1 of each year set forth below:

Year	Maintenance Fee
2011	$ [**]
2012	$ [**]
2013	$ [**]
2014	$ [**]
2015 and every year thereafter	$ [**]

The license maintenance fee is nonrefundable. The license maintenance fee will be credited to running royalties subsequently due on NET SALES earned during the same calendar year, if any, and license maintenance fees paid in excess of running royalties due in such calendar year will not be creditable to amounts due for future years. The license maintenance fee is not creditable against any other payment due hereunder.

(c) Milestone Payments. COMPANY shall pay to WHITEHEAD the following milestone payments upon first achievement of the following milestones

whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER. These milestone payments are nonrefundable and noncreditable.

(1) For each LICENSED PRODUCT:

(i) [**] Dollars ($[**]) upon the [**];

(ii) [**] Dollars ($[**]) upon the [**];

(iii) [**] Dollars ($[**]) upon the [**]; and

(iv) [**] Dollars ($[**]) upon [**];

provided, however, that in the event that any LICENSED PRODUCT does not proceed through all the foregoing stages, no duplication of milestone payments shall be made for any backup compounds. As used in this subsection (1), a “backup compound” means a LICENSED PRODUCT (x) that is directed to the same molecular target as another LICENSED PRODUCT then or previously in research and development and (y) that supplants or is intended to supplant such other LICENSED PRODUCT.

(2) For each IDENTIFIED PRODUCT:

(i) [**] Dollars ($[**]) upon [**];

(ii) [**] Dollars ($[**]) upon the [**];

(iii) [**] Dollars ($[**]) upon the [**];

(iv) [**] Dollars ($[**]) upon the [**]; and

(v) [**] Dollars ($[**]) upon [**].

provided, however, that in the event that any IDENTIFIED PRODUCT does not proceed through all the foregoing stages, no duplication of milestone payments shall be made for any back-up compounds. As used in this subsection (2), a “backup compound” means an IDENTIFIED PRODUCT (x) that is directed to the same molecular target as another IDENTIFIED PRODUCT then or previously in research and development and (y) that supplants or is intended to supplant such other IDENTIFIED PRODUCT.

(3) For each LICENSED PRODUCT and IDENTIFIED PRODUCT that is a diagnostic or prognostic test: [**] Dollars ($[**]) upon the [**].

(4) For the first patent issuance of PATENT RIGHTS anywhere in the group of countries consisting of the U.S., U.K., France, Germany, Spain, and Italy: [**] Dollars ($[**]). For the avoidance of doubt, this payment shall be paid no more than once.

(d) Running Royalties:

(i) LICENSED PRODUCTS.

For therapeutics: COMPANY shall pay to WHITEHEAD a running royalty of [**] Percent ([**]%) of NET SALES of LICENSED PRODUCTS, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, for cumulative NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of such LICENSED PRODUCT less than [**] Dollars ($[**]) and a running royalty of [**] Percent ([**]%) of NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of LICENSED PRODUCTS for cumulative NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of [**] Dollars ($[**]) and more;

For diagnostics and/or prognostics: COMPANY shall pay to WHITEHEAD a running royalty of [**] Percent ([**]%) of NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of LICENSED PRODUCTS.

(ii) IDENTIFIED PRODUCTS. COMPANY shall pay to WHITEHEAD a running royalty of [**] Percent ([**]%) of NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of IDENTIFIED PRODUCTS.

(iii) LICENSED SERVICE. COMPANY does not anticipate that COMPANY, AFFILIATE, or SUBLICENSEE will perform

LICENSED SERVICES. In the event that COMPANY, AFFILIATE, or SUBLICENSEE will be performing LICENSED SERVICES, COMPANY and WHITEHEAD shall negotiate in good faith a commercially reasonable Running Royalty of SERVICE INCOME prior to the earliest provision of such LICENSED SERVICE by COMPANY, AFFILIATE, or SUBLICENSEE.

Running royalties will be payable for each REPORTING PERIOD and will be due to WHITEHEAD within [**] days of the end of each REPORTING PERIOD.

Running royalties for each IDENTIFIED PRODUCT under this Section 4.1(d)(ii) will be due for a period extending until the ten (10) year anniversary of the date of the first sale for consumption by an end-user patient of each said IDENTIFIED PRODUCT on a country-by-country basis. The Parties expressly agree that such a payment period is not an extension of the PATENT RIGHTS beyond their term, but rather is a period determined for the convenience of the Parties in recognition of the value of the PATENT RIGHTS and TANGIBLE PROPERTY in identifying IDENTIFIED PRODUCTS and as appropriate compensation for the rights granted herein.

The Parties agree that neither royalty-stacking nor combination-product provisions will apply to these Running Royalties.

(e) Sharing of SUBLICENSE INCOME. COMPANY shall pay WHITEHEAD a percentage of all SUBLICENSE INCOME received by COMPANY or AFFILIATES or SUBLICENSEES according to the following schedule:

(i) For SUBLICENSE INCOME received from a CORPORATE PARTNER or SUBLICENSEE in consideration for rights granted under Section 2.3:

Percent	Event
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.

[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.

(ii) For SUBLICENSE INCOME received from a CORPORATE PARTNER or SUBLICENSEE in consideration for rights to an IDENTIFIED PRODUCT:

[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.

Such amounts will be payable for each REPORTING PERIOD and will be due to WHITEHEAD within [**] days of the end of each REPORTING PERIOD.

(f) Consequences of a PATENT CHALLENGE. In the event that a PATENT CHALLENGE brought by COMPANY and/or AFFILIATES and/or SUBLICENSEES is successful (except as required under a court order or subpoena), COMPANY will have no right to recoup any royalties or other payments paid during the period of challenge. In the event that a PATENT CHALLENGE brought by COMPANY and/or AFFILIATES is unsuccessful, COMPANY shall reimburse WHITEHEAD for all reasonable legal fees and expenses incurred in its defense against the PATENT CHALLENGE. In the event

that a (1) PATENT CHALLENGE is brought by SUBLICENSEE and (2) COMPANY does not terminate the sublicense in accord with Section 8.2 and (3) such PATENT CHALLENGE is unsuccessful, then COMPANY shall reimburse WHITEHEAD for all reasonable legal fees and expenses incurred in its defense against the PATENT CHALLENGE. The state and federal courts having jurisdiction over Cambridge, Massachusetts, U.S.A., provide the exclusive forum for any PATENT CHALLENGE, and COMPANY submits to and shall contractually obligate SUBLICENSEES to submit to the jurisdiction of such courts and waives any claim that such court lacks jurisdiction over COMPANY or its AFFILIATES or constitutes an inconvenient or improper forum.

(g) 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 will not be due.

(h) Equity.

(1) Initial Grant. COMPANY shall issue a total of 416,667 shares of Common Stock of COMPANY, $.0001 par value per share, (the "Shares") in the name of WHITEHEAD, M.I.T., HARVARD and those individuals listed in Appendix C ("Whitehead/M.I.T./HARVARD Holders"), in the amounts specified in Appendix C under the heading "Initial Common Stock Distribution" (subject to equitable adjustment to reflect the one-for-3.5 reverse stock split of all outstanding shares of Common Stock effected on January 10, 2012). Such issuance shall be recorded on the Stock Transfer Ledger of COMPANY and the Shares shall be delivered to WHITEHEAD, M.I.T., HARVARD and Whitehead/M.I.T./HARVARD Holders, if any, within [**] days of the RESTATEMENT DATE. In connection with the initial grant of the Shares, WHITEHEAD, M.I.T., HARVARD and the Whitehead/M.I.T./HARVARD Holders, if any, shall execute and deliver to the Company an Equity Agreement relating to the issuance of the Shares, substantially in the form attached hereto as Appendix F. COMPANY represents to WHITEHEAD, M.I.T. and HARVARD that, as of the ORIGINAL EFFECTIVE DATE, the aggregate number of Shares equals Four Percent (4.0%) of the COMPANY's issued and outstanding Common Stock calculated on a Fully Diluted Basis (as defined below).

(2) Anti-Dilution Protection. From and after the ORIGINAL EFFECTIVE DATE, COMPANY shall issue additional shares of Common Stock to WHITEHEAD, M.I.T., HARVARD and each Whitehead/M.I.T./HARVARD Holder pro rata based on their shares then outstanding, such that WHITEHEAD's, M.I.T.'s, HARVARD's and the Whitehead/M.I.T./HARVARD Holders' aggregate ownership of outstanding Common Stock shall not fall below Four Percent (4.0%) on a Fully Diluted Basis, as calculated after giving effect to the anti-dilutive issuance. Such issuances will continue until and including the raising of a total of [**] Dollars ($[**]) in cash in exchange for COMPANY's capital stock (the "Funding Threshold") will be received by COMPANY. Thereafter, no additional shares will be due to WHITEHEAD, M.I.T., HARVARD or any Whitehead/M.I.T./HARVARD Holder pursuant to this section. The parties hereby acknowledge and agree that set forth on Appendix C under the heading "Subsequent Common Stock Distribution" are the number of shares to be issued to WHITEHEAD, M.I.T., HARVARD and each Whitehead/M.I.T./HARVARD Holder as a result of the Company having achieved the Funding Threshold prior to the RESTATEMENT DATE (subject to equitable adjustment to reflect the one-for-3.5 reverse stock split of all outstanding shares of Common Stock effected on January 10, 2012) and that, following the issuance of such additional shares as set forth under such heading in Appendix C, no further additional shares shall be issuable pursuant to this Section 4.1(h)(2).

(3) Participation in Future Private Equity Offerings. After the date of the Funding Threshold, WHITEHEAD, M.I.T. and HARVARD (specifically not including Whitehead/M.I.T./HARVARD Holders) will have the right to purchase additional shares of the COMPANY's Common Stock in any private offering by the COMPANY of such capital stock 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 at least as favorable as those granted to the other offerees. All rights granted pursuant to this Section 4.1(h)(3) will 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 [**] Dollars ($[**]). The right of participation set forth in this Section 4.1(h)(3) shall not be applicable to the following issuances: (a) issuances

treated as "Exempted Securities" as defined in Section 4.4.1(e)(i)-(vi) of Part B of Article Fourth of the Company's Second Amended and Restated Certificate of Incorporation, as amended from time to time (for purposes hereof the "Exempted Issuances"); and (b) the issuance of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock of the Company.

(4) Adjustments for Punitive Round Financings. After the date of the Funding Threshold (the "Funding Threshold Date"), if COMPANY takes any action that is a Dilutive Issuance (as defined below), then immediately following such Dilutive Issuance, COMPANY shall issue to WHITEHEAD, M.I.T. and HARVARD, pro rata based on their shares then outstanding, additional shares of Common Stock such that the Institution Share Number (as defined below) equals the product obtained by multiplying the Institution Share Number in effect immediately before the Dilutive Issuance by the Adjustment Fraction defined below. The Institution Share Price in effect immediately after the Dilutive Issuance will be adjusted to equal the result obtained by dividing the Institution Share Price in effect immediately before the Dilutive Issuance by the Adjustment Fraction defined below.

The Adjustment Fraction equals: (A + C) divided by (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 Institution Share Price immediately prior to the Dilutive Issuance using the aggregate consideration received by COMPANY in connection with the Dilutive Issuance.

C = the number of shares of Capital Stock issued on a Fully Diluted Basis pursuant to the Dilutive Issuance, or, if a Convertible Instrument is issued in the Dilutive Issuance, the number of shares of Capital Stock issuable on a Fully Diluted Basis if all shares of the Convertible Instrument were converted into the applicable Capital Stock, whether or not then exercisable or convertible.

For the purpose of calculating "C", if the Dilutive Issuance is as described in subpart (III) of the definition of Dilutive Issuance below, then C will be the total number of shares of Capital Stock into which the newly adjusted Convertible Instrument could be exercised or converted, whether or not then exercisable or convertible.

The following definitions will apply to this Section 4.1(h):

"Capital Stock" will mean any form of COMPANY's capital stock.

"Convertible Instrument" will mean any instrument issued by COMPANY that is convertible into, or may be exercised in exchange for, any Capital Stock.

"Dilutive Issuance" will mean any issuance of Capital Stock or any Convertible Instrument by COMPANY where such issuance results in (I) the price per share of COMPANY's Common Stock being reduced to less than the then current Institution Share Price (as defined in this subsection); (II) the price per share of any Convertible Instrument being reduced to less than the price of the same series or type of Convertible Instrument in the most recently preceding offering and sale of such Convertible Instrument; or (III) the conversion ratio of any Convertible Instrument changing such that each previously issued share of such Convertible Instrument becomes convertible into a greater number of shares of the applicable Capital Stock; provided, however, that any adjustment in conversion ratio pursuant to the anti-dilution provisions of the Company's Certificate of Incorporation shall not be a Dilutive Issuance for the purposes hereof, and provided further that Exempted Issuances shall not be Dilutive Issuances for the purposes hereof.

"Fair Market Value" of a share of Common Stock will 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 will 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 will 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. For the purposes of determining Fair Market Value of Common Stock on the Funding Threshold Date, a valuation that meets the requirements of Section 409A of the Internal Revenue Code, as amended, and the regulations promulgated thereunder, and adopted by the Board of Directors of the Company shall be conclusive evidence of a good faith determination by the Board of Directors of such value.

"Fully Diluted Basis" will mean the total number of issued and outstanding shares of the COMPANY's Common Stock calculated to include conversion of all issued and outstanding securities 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 the conversion or exercise of all rights to purchase or acquire Common Stock, whether or not then convertible or exercisable.

"Institution Share Number" will mean the number of shares of COMPANY's Common Stock that WHITEHEAD, M.I.T. and HARVARD 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 WHITEHEAD, M.I.T. or HARVARD pursuant to Section 4.1(h)(3) will not be included in the Institution Share Number.

"Institution Share Price" will mean the value per share of the shares of Common Stock included in the Institution Share Number, as adjusted from time to time pursuant to this section. For purposes of this section, the initial Institution Share Price to be used in an adjustment resulting from the first Dilutive Issuance to occur after the Funding Threshold Date will be the Fair Market Value per share of the Common Stock of the COMPANY effective on the Funding Threshold Date.

Equitable adjustment shall be made to the foregoing provisions of this subsection (4) to account for any stock splits, stock dividends, stock combinations or similar corporate events.

All rights granted pursuant to this Section 4.1(h)(4) will 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 [**] Dollars ($[**]).

(5) WHITEHEAD hereby agrees that as a condition to the issuance of the shares contemplated by this Section 4.1 to WHITEHEAD, M.I.T. and HARVARD, each will become a party as a "Key Holder" to that certain Right of First Refusal and Co-Sale Agreement and that certain Voting Agreement, by and between the COMPANY and the other parties thereto, forms of which have been furnished to WHITEHEAD, with such changes thereto as may be agreed by the other Key Holders prior to the execution thereof.

Notwithstanding anything to the contrary herein, the provisions set forth in Sections 4.1(h)(3) and 4.1(h)(4) shall be of no further force and effect and will terminate without any further action by the COMPANY following a Deemed Liquidation Event, as defined in Section 2.3.1 of Part B of Article Fourth of the COMPANY's Certificate of Incorporation, as amended from time to time.

4.2 Payments.

(a) Method of Payment. All payments under this Agreement should be made payable to "Whitehead Institute for Biomedical Research" and sent to WHITEHEAD's address identified in Section 15.1. Each payment should reference this Agreement (WHITEHEAD Reference: [**]) and identify the obligation under this Agreement that the payment satisfies.

(b) Payments in U.S. Dollars. All payments due under this Agreement will be drawn on a United States bank and will be payable in United States dollars. Conversion of foreign currency to U.S. dollars will 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 will 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 will bear interest, to the extent permitted by law, at two percentage points above the Prime Rate of interest as reported in the *Wall Street Journal* on the date payment is

due.

5. REPORTS AND RECORD KEEPING

5.1 Frequency of Reports.

(a) Before First Commercial Sale. Prior to the first commercial sale of any LICENSED PRODUCT or IDENTIFIED PRODUCT or first commercial performance of any LICENSED PROCESS, COMPANY shall deliver reports to WHITEHEAD 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. COMPANY shall include a description of its compliance with COMPANY's diligence obligations in accord with Article 3.

(b) Upon First Commercial Sale. COMPANY shall report to WHITEHEAD the date of first commercial sale of each LICENSED PRODUCT and each IDENTIFIED 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, the first commercial sale of an IDENTIFIED PRODUCT, and the first commercial performance of a LICENSED PROCESS, COMPANY shall deliver reports to WHITEHEAD 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 WHITEHEAD will contain at least the following information for the immediately preceding REPORTING PERIOD:

(i) the number of LICENSED PRODUCTS and IDENTIFIED PRODUCTS sold, leased or distributed by COMPANY, AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS to independent third parties in each country, and, if applicable, the number of LICENSED PRODUCTS used by COMPANY, AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS in the performance of LICENSED PROCESSES in each country;

(ii) a description of LICENSED PROCESSES performed by COMPANY, AFFILIATES, and SUBLICENSEES in each country as may be pertinent to a royalty accounting hereunder;

(iii) the gross price charged by COMPANY, AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS for each LICENSED PRODUCT and each IDENTIFIED PRODUCT, and, if applicable, the gross price charged for each LICENSED PRODUCT used in the performance of LICENSED PROCESSES in each country; and the gross price charged for each LICENSED PROCESS performed by COMPANY, 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) calculation of SERVICE INCOME for the applicable REPORTING PERIOD in each country, including a listing of applicable deductions;

(vii) subject to the outcome of the negotiation contemplated in Section 4.1(d)(iii), total royalty payable on SERVICE INCOME in U.S. dollars, together with the exchange rates used for conversion;

(viii) the amount of SUBLICENSE INCOME received by COMPANY from each SUBLICENSEE and each CORPORATE PARTNER and the amount deliverable to WHITEHEAD from such SUBLICENSE INCOME, including an itemized breakdown of the sources of income comprising the SUBLICENSE INCOME; and

(ix) the number of sublicense agreements and corporate partner agreements entered into for the PATENT RIGHTS, LICENSED PRODUCTS, IDENTIFIED PRODUCTS, and/or LICENSED PROCESSES.

If no amounts are due for any REPORTING PERIOD, the report will so state.

5.3 Financial Statements. On or before the [**] day following the close of COMPANY's fiscal year, COMPANY shall provide WHITEHEAD 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. During any time period in which COMPANY is required to make filings of its annual financial information with the U.S. Securities and Exchange Commission, and such reports are available via a publicly accessible website, COMPANY shall not be required to actually deliver copies of the foregoing reports to WHITEHEAD, provided, however, that COMPANY shall provide such financial statements to WHITEHEAD upon WHITEHEAD's request.

5.4 Record keeping. COMPANY shall maintain, and shall cause its AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS to maintain, complete and accurate records relating to the rights and obligations under this Agreement and any amounts payable to WHITEHEAD in relation to this Agreement, which records will contain sufficient information to permit WHITEHEAD to confirm the accuracy of any reports delivered to WHITEHEAD 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 WHITEHEAD or WHITEHEAD's appointed agents, will have the right, at WHITEHEAD's expense, to inspect such records during normal business hours 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 five percent

(5%), COMPANY shall bear the full cost of such audit and shall remit any amounts due to WHITEHEAD within [**] days of receiving notice thereof from WHITEHEAD.

6. PATENT PROSECUTION

6.1 Responsibility for PATENT RIGHTS.

(a) WHITEHEAD shall prepare, file, prosecute, and maintain all of the PATENT RIGHTS.

(b) During the EXCLUSIVE PERIOD: COMPANY will have reasonable opportunities to advise WHITEHEAD and shall cooperate with WHITEHEAD in such filing, prosecution and maintenance. WHITEHEAD shall consult with COMPANY on the prosecution of the PATENT RIGHTS, shall provide the COMPANY with copies of any correspondence sent to or received from the applicable patent office regarding any PATENT RIGHTS, and shall provide the COMPANY with a reasonable period of time prior to filing any patent applications, office actions, or related correspondence with the applicable patent office regarding any PATENT RIGHTS to review drafts of such materials. The COMPANY's suggestions and requests regarding patent prosecution will be reasonably considered and included by WHITEHEAD except for those specific suggestions or requests that WHITEHEAD, in its sole discretion, reasonably concludes in good faith would, if implemented, decrease the value of the PATENT RIGHTS, evaluated as a whole. WHITEHEAD shall not abandon, or otherwise elect to forego its rights in, any PATENT RIGHTS without COMPANY's prior written consent, which consent shall not be unreasonably withheld. This Section 6.1(b) will automatically terminate at the end of the EXCLUSIVE PERIOD.

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 will be filed, prosecuted, and maintained. Appendix B may be amended by mutual agreement of COMPANY and WHITEHEAD. WHITEHEAD shall not unreasonably withhold, condition, or delay its agreement to amend Appendix B to include additional countries that are proposed by COMPANY or to remove countries.

6.3 Payment of Expenses. Payment of all fees and costs, including attorneys' fees, relating to the filing, prosecution, and maintenance of the PATENT RIGHTS will be the responsibility of COMPANY, whether such amounts were incurred before or after the ORIGINAL EFFECTIVE DATE. As of August 10, 2010, WHITEHEAD and M.I.T. have incurred approximately [**] Dollars ($[**]) for such patent-related fees and costs. COMPANY shall reimburse all amounts due pursuant to this Section 6.3 within [**] days of invoicing; late payments will accrue interest pursuant to Section 4.2(c). In all instances, WHITEHEAD shall pay the fees prescribed for large entities to the United States Patent and Trademark Office. COMPANY may elect by [**]-day advance written notice to WHITEHEAD, on a patent right by patent right and country-by-country basis, to cease paying future fees and costs relating to the filing, prosecution, and maintenance of a particular patent right in a particular country. Upon such election, COMPANY shall no longer have any rights hereunder with respect to such patent right in such country.

7. INFRINGEMENT

7.1 Notification of Infringement. Each Party agrees to provide written notice to the other Parties 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, will 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, WHITEHEAD, M.I.T. and HARVARD shall permit any action under this Section to be brought in their name, including being joined as a party-plaintiff, provided that COMPANY shall hold WHITEHEAD, M.I.T. and HARVARD harmless from, and indemnify WHITEHEAD, M.I.T. and HARVARD against any costs, expenses, or liability that WHITEHEAD, M.I.T. and HARVARD incur in connection with such action.

Prior to commencing any such action, COMPANY shall consult with WHITEHEAD, M.I.T. and HARVARD and shall consider the views of WHITEHEAD, M.I.T. and HARVARD 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 WHITEHEAD, M.I.T. and HARVARD.

(b) WHITEHEAD 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 a reasonable time after COMPANY first becomes aware of the basis for such action, WHITEHEAD, M.I.T. and HARVARD will have the right, at their sole discretion, to prosecute such infringement under its sole control and at its sole expense, and any recovery obtained will belong to WHITEHEAD, M.I.T. and HARVARD.

7.3 Declaratory Judgment Actions. In the event that a PATENT CHALLENGE is brought against WHITEHEAD or M.I.T. or HARVARD or COMPANY by a third party, WHITEHEAD, M.I.T. and HARVARD, at their sole discretion, will have the right within [**] days after commencement of such action to take over the sole defense of the action at its own expense; provided, however, that the foregoing right shall not apply to a PATENT CHALLENGE that is brought as a counterclaim in, or otherwise in connection with, an infringement suit being brought by COMPANY pursuant to Section 7.2. If WHITEHEAD, M.I.T. and/or HARVARD do not exercise this right, then COMPANY may take over the sole defense of the action at COMPANY'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 WHITEHEAD under Article 4, provided that in no event will such payments under Article 4, when aggregated with any other offsets and credits allowed under this Agreement, be reduced by more than [**] percent ([**]%) in any REPORTING PERIOD.

7.5 Recovery. Any recovery obtained in an action brought by COMPANY under Sections 7.2 or 7.3 will be distributed as follows:

(i) each Party will be reimbursed for any expenses incurred in the action (including the amount of any royalty or other payments withheld from WHITEHEAD as described in Section 7.4);

(ii) as to ordinary damages, COMPANY will receive an amount equal to its lost profits or a reasonable royalty on the infringing sales, or whichever measure of damages the court will have applied, and COMPANY shall pay to WHITEHEAD based upon such amount a reasonable approximation of the royalties and other amounts that COMPANY would have paid to WHITEHEAD if COMPANY had sold the infringing products, processes, and services rather than the infringer including without limitation milestone payments; and

(iii) as to special or punitive damages, the WHITEHEAD and COMPANY will share equally in any award.

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 Parties promptly for any costs and expenses actually incurred by the cooperating Parties in connection with providing such assistance.

7.7 Right to Sublicense. So long as COMPANY remains the exclusive licensee of the PATENT RIGHTS in the FIELD in the TERRITORY, COMPANY will have the sole right to sublicense any alleged infringer in the FIELD in the TERRITORY for future use of the PATENT RIGHTS in accordance with the terms and conditions of this Agreement relating to sublicenses. Any upfront fees or other revenues to COMPANY pursuant to such sublicense will be treated as set forth in Article 4.

8. PATENT CHALLENGE

8.1 In the event that COMPANY or AFFILIATES brings a PATENT CHALLENGE against WHITEHEAD, M.I.T. and/or HARVARD, or COMPANY or AFFILIATES assist another party in bringing a PATENT CHALLENGE against WHITEHEAD, M.I.T. and/or HARVARD (except as required under a court order or subpoena), WHITEHEAD, M.I.T. and HARVARD, in their sole discretion, may terminate this Agreement immediately upon written

notice to COMPANY without any liability and without any opportunity to cure by COMPANY, as provided in Section 13.4(a). COMPANY will have no right to recoup any royalties paid or other payments made during the period of challenge as provided in Section 4.1(f).

8.2 In the event that SUBLICENSEE brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD, M.I.T. and/or HARVARD (except as required under a court order or subpoena), COMPANY agrees that it will immediately terminate such sublicense upon notice by WHITEHEAD, as provided in Section 13.4(b). COMPANY will have no right to recoup any royalties paid or other payments made during the period of challenge as provided in Section 4.1(f).

8.3 In the event that (i) COMPANY or AFFILIATES brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD, M.I.T. and/or HARVARD (except as required under a court order or subpoena); or (ii) COMPANY fails to terminate a sublicense to a SUBLICENSEE as required by Section 8.2, and in either case WHITEHEAD, M.I.T. and HARVARD do not terminate this Agreement, then the following shall apply:

(a) WHITEHEAD, M.I.T. and HARVARD, in their sole discretion, may choose at any time following the initiation of such PATENT CHALLENGE to grant one or more licenses to third parties under the PATENT RIGHTS, including without limitation, 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.

(b) The EXCLUSIVE PERIOD under Section 2.2 will immediately terminate;

(c) COMPANY and its AFFILIATES shall immediately destroy all TANGIBLE PROPERTY, and COMPANY shall confirm such destruction in writing to WHITEHEAD (and COMPANY shall contractually obligate its SUBLICENSEES to do the same);

(d) COMPANY will have no right to recoup any royalties paid or other payments made during the period of challenge as provided in Section 4.1(f); and

(e) COMPANY shall reimburse WHITEHEAD, M.I.T. and HARVARD for all legal fees and expenses incurred in its defense against the PATENT CHALLENGE.

8.4 The state and federal courts having jurisdiction over Cambridge, Massachusetts, U.S.A., provide the exclusive forum for any PATENT CHALLENGE, and COMPANY submits to and shall contractually obligate SUBLICENSEES to submit to the jurisdiction of such courts and waives any claim that such court lacks jurisdiction over COMPANY or AFFILIATES or constitutes an inconvenient or improper forum.

9. INDEMNIFICATION AND INSURANCE

9.1 Indemnification.

(a) Indemnity. COMPANY shall indemnify, defend, and hold harmless WHITEHEAD, M.I.T., HARVARD and their 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 attorneys' fees and expenses) incurred by or imposed upon any of the Indemnitees in connection with any claims, suits, investigations, actions, demands or judgments by third parties (collectively, "Losses"), to the extent such Losses arise out of or relate to the exercise of any rights granted to COMPANY under this Agreement or any breach of this Agreement by COMPANY. Notwithstanding the foregoing, COMPANY shall have no obligations under this Section 9.1(a) to the extent any Loss arises out of or is related to any gross negligence or willful misconduct on the part of the Indemnitees.

(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 WHITEHEAD, M.I.T. and HARVARD 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 will 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 WHITEHEAD, M.I.T. and HARVARD informed of the progress in the defense and disposition of such claim and to consult with WHITEHEAD, M.I.T. and HARVARD with regard to any proposed settlement.

9.2 Insurance. COMPANY shall obtain and carry in full force and effect commercial general liability insurance, including product liability and errors and omissions insurance which will protect COMPANY and Indemnitees with respect to events covered by Section 9.1(a) above. Such insurance will:

(i) be issued by an insurer licensed to practice in the Commonwealth of Massachusetts or an insurer pre-approved by WHITEHEAD, M.I.T. and HARVARD, such approval not to be unreasonably withheld;

(ii) list WHITEHEAD, M.I.T. and HARVARD as additional insureds thereunder;

(iii) be endorsed to include product liability coverage; and

(iv) require [**] days written notice to be given to WHITEHEAD, M.I.T. and HARVARD prior to any cancellation or material change thereof.

The limits of such insurance will not be less than [**] Dollars ($[**]) per occurrence with an aggregate of [**] Dollars ($[**]) for bodily injury including death; [**] Dollars ($[**]) per occurrence with an aggregate of [**] Dollars ($[**]) for property damage; and [**] Dollars ($[**]) per occurrence with an aggregate of [**] Dollars ($[**]) for errors and omissions.

In the alternative, COMPANY may self-insure subject to the prior approval of WHITEHEAD, M.I.T. and HARVARD. COMPANY shall provide WHITEHEAD, M.I.T. and HARVARD with Certificates of Insurance evidencing compliance with this Section, at the reasonable request of WHITEHEAD, M.I.T. and/or HARVARD. 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 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 LICENSED PROCESS under this Agreement, and thereafter for a period of [**] years.

10. NO REPRESENTATIONS AND NO WARRANTIES

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, WHITEHEAD, M.I.T. AND HARVARD MAKE NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE PATENT RIGHTS OR TANGIBLE PROPERTY, AND HEREBY DISCLAIM ALL REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF WHITEHEAD, M.I.T., HARVARD OR THIRD PARTIES, VALIDITY, ENFORCEABILITY AND SCOPE OF PATENT RIGHTS, WHETHER ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE.

The TANGIBLE PROPERTY is experimental in nature and will be used with prudence and appropriate caution since not all of its characteristics are known.

IN NO EVENT SHALL COMPANY, WHITEHEAD, M.I.T., HARVARD OR ANY OF THEIR RESPECTIVE 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, ARISING OUT OF THIS AGREEMENT, REGARDLESS OF WHETHER SUCH PERSON OR ENTITY SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING.

11. ASSIGNMENT

This Agreement is personal to COMPANY and no rights or obligations may be assigned by COMPANY without the prior written consent of WHITEHEAD. The foregoing notwithstanding, COMPANY may assign its rights and obligations under this Agreement to a successor in connection with the merger, consolidation, or sale of all or substantially all of its assets or that portion of its business to which this Agreement relates; provided, however, that this

Agreement will immediately terminate if the proposed assignee fails to agree in writing to be bound by the terms and conditions of this Agreement on or before the effective date of the assignment.

12. GENERAL COMPLIANCE WITH LAWS

12.1 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.

12.2 Export Control. COMPANY and 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 to comply with (and will contractually obligate its 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 WHITEHEAD, M.I.T. and HARVARD harmless (in accordance with Section 9.1) for the consequences of any such violation.

12.3 Non-Use of Name. COMPANY and AFFILIATES and SUBLICENSEES shall not use the name of “Whitehead Institute”, “Massachusetts Institute of Technology”, “Lincoln Laboratory”, “Harvard” or any variation, adaptation, or abbreviation thereof, or of any of their trustees, officers, faculty, students, employees, or agents, or any trademark owned by WHITEHEAD, M.I.T. or HARVARD, or any terms of this Agreement in any promotional material or other public announcement or disclosure (other than public announcements or disclosures that are required by applicable laws or regulations) without the prior written consent of the relevant party, which consent such party may withhold in its sole discretion. The foregoing notwithstanding, without the consent of WHITEHEAD, COMPANY may make factual

statements during the term of this Agreement that COMPANY has a license from WHITEHEAD under one or more of the patents and/or patent applications comprising the PATENT RIGHTS.

12.4 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.

13. TERMINATION

13.1 Voluntary Termination by COMPANY. COMPANY shall have the right to terminate this Agreement, for any reason, (i) upon at least ninety (90) days prior written notice to WHITEHEAD, such notice to state the date at least ninety (90) days in the future upon which termination is to be effective, and (ii) upon payment of all amounts due to WHITEHEAD through such termination effective date.

13.2 Cessation of Business. If COMPANY and all of its SUBLICENSEES cease to carry on all business related to this Agreement for a period in excess of [**] months, WHITEHEAD will have the right to terminate this Agreement immediately upon written notice to COMPANY.

13.3 Termination for Default.

(a) Nonpayment. In the event COMPANY fails to pay any amounts due and payable to WHITEHEAD hereunder, and fails to make such payments within [**] days after receiving written notice of such failure, WHITEHEAD 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 breach as described in Section 13.3(a), and fails to cure that breach within [**] days after receiving written notice thereof, WHITEHEAD may terminate this Agreement immediately upon written notice to COMPANY.

13.4 Termination as a Consequence of PATENT CHALLENGE.

(a) By COMPANY. If COMPANY or any of its AFFILIATES brings a PATENT CHALLENGE against WHITEHEAD or assists others in bringing a PATENT CHALLENGE against WHITEHEAD, M.I.T. and/or HARVARD (except as required under a court order or subpoena), then WHITEHEAD may immediately terminate this Agreement and/or the license granted hereunder.

(b) By SUBLICENSEE. If a SUBLICENSEE brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD, M.I.T. and/or HARVARD (except as required under a court order or subpoena), then WHITEHEAD may send a written demand to COMPANY to terminate such sublicense. If COMPANY fails to so terminate such sublicense within [**] days after WHITEHEAD's demand, WHITEHEAD may immediately terminate this Agreement and/or the license granted hereunder, unless SUBLICENSEE ceases such PATENT CHALLENGE by the end of such [**] day period.

13.5 Effect of Termination.

(a) Survival. The following provisions shall survive the expiration or termination of this Agreement: Articles 1 (Definitions), 9 (Indemnification and Insurance), 10 (No Representations and No Warranties), 14 (Dispute Resolution) and 15 (Miscellaneous), and Sections 2.3(b) (Survival of Sublicense Agreement), 4.1(c)(2) (Milestone Payments for IDENTIFIED PRODUCTS), 4.1(d)(ii) (Running Royalties for IDENTIFIED PRODUCTS), 4.1(h) (Equity), 5.2 (obligation to provide final report and payment), 5.4 (Record Keeping), 12.1 (Compliance with Laws), 12.2 (Export Control) and 13.5 (Effect of Termination).

(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 WHITEHEAD 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) Pre-termination Obligations. In no event will 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.

14. DISPUTE RESOLUTION

14.1 Mandatory Procedures. The Parties agree that any dispute arising out of or relating to this Agreement will 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 any Party fails to observe the procedures of this Article, as may be modified by their written agreement, the other Parties may bring an action for specific performance of these procedures in any court of competent jurisdiction.

14.2 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, any 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.

14.3 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 Parties of such dispute, any Party may initiate mediation upon written notice to the other Party ("Notice Date"), whereupon all 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 any 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 no Party elects to initiate mediation, each Party will 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.

14.4 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 any 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.

14.5 Statute of Limitations. The Parties agree that all applicable statutes of limitation and time-based defenses (such as estoppel and laches) will be tolled while the procedures set forth in Section 14.3(a) are pending. The Parties shall cooperate in taking any actions necessary to achieve this result.

15. MISCELLANEOUS

15.1 Notice. Any notices required or permitted under this Agreement will be in writing, will specifically refer to this Agreement, and will 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 WHITEHEAD:
Whitehead Institute for Biomedical Research
Nine Cambridge Center
Cambridge, MA 02142
Attention: Intellectual Property Office
Tel: 617-258-5104
Fax: 617-258-6294

If to M.I.T.:
Massachusetts Institute of Technology
Technology Licensing Office
Room NE18-501
One Cambridge Center, Kendall Square
Cambridge, MA 02142
Attention: Director
Tel: 617-253-6966
Fax: 617-258-6790

If to HARVARD:
Office of Technology Development
Harvard University
Holyoke Center 727
1350 Massachusetts Avenue
Cambridge, Massachusetts 02138
Facsimile: (617) 495-9568
Attn.: Chief Technology Development Officer

If to COMPANY:
Verastem, Inc.
215 First Street, Suite 440
Cambridge, MA 02142
Attention: Chief Operating Officer
Tel: 617-351-2590
Fax: 617-351-2640

All notices under this Agreement will be deemed effective upon receipt. A Party may change its contact information immediately upon written notice to the other Parties in the manner provided in this Section.

15.2 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, will 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 will be determined by the law of the country in which the patent shall have been granted. The state and federal courts having jurisdiction over Cambridge, Massachusetts, U.S.A., provide the exclusive forum for any

PATENT CHALLENGE and/or any court action among the Parties relating to this Agreement. COMPANY submits to and shall contractually obligate SUBLICENSEES to submit to the

jurisdiction of such courts and waives any claim that such court lacks jurisdiction over COMPANY or its AFFILIATES or constitutes an inconvenient or improper forum.

15.3 Force Majeure. No 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.

15.4 Amendment and Waiver. This Agreement may be amended, supplemented, or otherwise modified only by means of a written instrument signed by all 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.

15.5 Severability. In the event that any provision of this Agreement will be held invalid or unenforceable for any reason, such invalidity or unenforceability will not affect any other provision of this Agreement, and the Parties will 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 will be resolved in accordance with the procedures set forth in Article 14. While the dispute is pending resolution, this Agreement will be construed as if such provision were deleted by agreement of the Parties.

15.6 Binding Effect. This Agreement will be binding upon and inure to the benefit of the Parties and their respective permitted successors and assigns.

15.7 Headings. All headings are for convenience only and will not affect the meaning of any provision of this Agreement.

15.8 Entire Agreement. This Agreement constitutes the entire agreement among the Parties with respect to its subject matter and supersedes all prior agreements or understandings among the Parties relating to its subject matter.

15.9 Confidentiality. WHITEHEAD, M.I.T. and HARVARD shall use reasonable efforts to maintain in confidence all CONFIDENTIAL INFORMATION (as defined below) of COMPANY and shall use reasonable efforts to not use or disclose such CONFIDENTIAL INFORMATION, except as expressly authorized by this Agreement. “CONFIDENTIAL INFORMATION” shall mean all information and reports labeled “confidential” and due to WHITEHEAD (or, if applicable, M.I.T. or HARVARD) under this Agreement, including without limitation reports due under Article 5 and any terms of sublicense agreements disclosed pursuant to Section 2.4(a). In addition, the terms of this Agreement shall be deemed to be CONFIDENTIAL INFORMATION. The non-disclosure and non-use obligations set forth above shall not apply to any information to the extent that (a) WHITEHEAD, M.I.T. or HARVARD can show by written record that it possessed the information prior to its receipt from COMPANY; (b) the information was, at the time of disclosure, available to the public or became so through no fault of WHITEHEAD, M.I.T. or HARVARD; or (c) the information is subsequently disclosed to WHITEHEAD, M.I.T. or HARVARD free of any obligations of confidentiality by a third party that has the right to disclose it. Notwithstanding any other provisions of this Section 15.9, WHITEHEAD, M.I.T. and HARVARD may disclose CONFIDENTIAL INFORMATION of COMPANY (i) on a need-to-know basis and in connection with the performance of their respective obligations and/or exercise of their respective rights under this Agreement, to its employees, consultants, or agents provided that such individuals or entities are bound by non-disclosure and non-use obligations at least equivalent in scope to those set forth in this Section 15.9; (ii) in confidence to its trustees, directors and professional advisors; and (iii) to the extent that such disclosure is required by a court order, or in order to comply with applicable laws or regulations, but provided that WHITEHEAD, M.I.T. and HARVARD will, except where impracticable, give reasonable advance notice to COMPANY of such required disclosure and use efforts to secure, or to assist the other party in securing, a protective order relating to, or confidential treatment of, such information.

[Signatures follow on the next page.]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives on the RESTATEMENT DATE.

For WHITEHEAD		**For COMPANY:**	
By:	/s/ Carla DeMaria	By:	/s/ Paul Brannelly
Name:	Carla DeMaria	Name:	Paul Brannelly
Title:	Director of Intellectual Property & Sponsored Programs	Title:	Vice President Finance
Date:	1/11/12	Date:	1/11/2012

APPENDIX A

List of Patent Applications and Patents

[**]

- [**]

- [**]
- [**]

APPENDIX B

List of Countries for which PATENT RIGHTS Applications
Will Be Filed, Prosecuted and Maintained

Japan
China
Canada
India
EPO (Countries will be determined in advance of the deadline to file.)

APPENDIX C

Initial Common Stock Distribution

WHITEHEAD	209,625
HARVARD	16,417
M.I.T.	111,500
Tamer T. Onder	19,666
Eric S. Lander	4,375
Robert Weinberg	15,750
Sendurai Mani	19,667
Mai-jing Liao	19,667
Total	416,667

Subsequent Common Stock Distribution

WHITEHEAD	83,850
HARVARD	6,567
M.I.T.	44,600
Tamer T. Onder	7,867
Eric S. Lander	1,750
Robert Weinberg	6,300
Sendurai Mani	7,866
Mai-jing Liao	7,866
Total	166,666

APPENDIX D

List of TANGIBLE PROPERTY

[**]

COMPANY acknowledges and agrees that there may be tangible property of interest to the COMPANY that is covered under patent rights that are not subject to this Agreement. WHITEHEAD and COMPANY agree that this list is a preliminary list that may be amended in the future. The provision of TANGIBLE PROPERTY by WHITEHEAD to COMPANY is subject to its reasonable availability and any restrictions imposed on WHITEHEAD by agreements for such materials (such as, without limitation, Material Transfer Agreements, licenses, and other agreements).

APPENDIX E

CORPORATE PARTNER AGREEMENT

1. The [Corporate Partner] hereby acknowledges that Whitehead Institute for Biomedical Research ("WHITEHEAD"), having a principal place of business at Nine Cambridge Center, Cambridge, Massachusetts 02142, has licensed certain PATENT RIGHTS and TANGIBLE PROPERTY to Verastem, Inc. ("VERASTEM"), under a License Agreement (the "License") effective as of [EFFECTIVE DATE], and that they expect to receive from VERASTEM or its AFFILIATES or its SUBLICENSEES one or more IDENTIFIED PRODUCTS or proprietary information with respect to one or more IDENTIFIED PRODUCTS (collectively, the "Transferred Technology"). All terms not otherwise defined herein shall have the same meanings set forth in the License.

2. In consideration of the value of the PATENT RIGHTS and TANGIBLE PROPERTY in developing the Transferred Technology, the [Corporate Partner] agrees to maintain and retain complete and accurate records of sales of IDENTIFIED PRODUCTS and any amounts paid or payable to VERASTEM in relation to such

IDENTIFIED PRODUCTS, all in accordance with Article 4 of the License.

3. If the [Corporate Partner] is notified, by WHITEHEAD or VERASTEM or otherwise, that the License has been terminated in accordance with its terms, such termination will not affect the rights of the undersigned to research and develop, make, use and sell IDENTIFIED PRODUCTS; provided, however, that the [Corporate Partner] hereby agrees that from and after the date of such termination the [Corporate Partner] shall have the obligation (a) to pay directly to WHITEHEAD all amounts that, had the License not been terminated, would have been due by VERASTEM pursuant to Article 4 of the License as a result of the activities of [Corporate Partner] with respect to all IDENTIFIED PRODUCTS, including royalties on NET SALES of IDENTIFIED PRODUCTS by [Corporate Partner], and (b) deliver directly to WHITEHEAD all reports otherwise due to VERASTEM pursuant to Section 2 above. All such payments and reports will be subject to the terms and conditions therefor set forth in the License. To the extent that the foregoing constitutes a grant of rights under PATENT RIGHTS or TANGIBLE PROPERTY with respect to the Transferred Technology, such rights will be contingent and, in the event of a failure to make any such payments or any other material breach by the undersigned, terminate upon [**] days notice unless the breach is cured prior to expiration of such period.

APPENDIX F

Form of Equity Agreement

VERASTEM, INC.

Equity Issuance Agreement

THIS EQUITY ISSUANCE AGREEMENT (the "**Agreement**") made this [ ] day of [ ], 2011, by and between Verastem, Inc., a Delaware corporation (the "**Company**"), and [ ] ("**Purchaser**").

WHEREAS, the Company and Whitehead Institute for Biomedical Research ("**Whitehead**") are parties to that certain Amended and Restated Exclusive Patent License and Tangible Property Agreement, dated as of October [ ], 2011 ("**License Agreement**"), pursuant to which, among other things, Whitehead has granted the Company a license under the interests of Whitehead, the Massachusetts Institute of Technology and President and Fellows of Harvard College in certain patents;

WHEREAS, as a condition to entering into the License Agreement, the parties have agreed to enter into this Agreement, providing for, among other things, the issuance of [ ] shares of common stock, $.0001 par value per share, of the Company to the Purchaser (the "**Shares**");

NOW THEREFORE, in consideration of the above recitals and the mutual covenants made herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Purchaser agree as follows:

1. Issuance of Shares.

(a) In partial consideration for the patent license granted to the Company pursuant to the License Agreement, the Company hereby issues the Shares to the Purchaser. The Company shall deliver a stock certificate representing the Shares to the Purchaser within ten (10) days of the date hereof.

(b) The Purchaser represents and covenants to the Company as follows:

(i) The Purchaser is acquiring the Shares for its 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, as amended (the "**Securities Act**"), or any rule or regulation under the Securities Act.

(ii) The Purchaser has had such opportunity as it has deemed adequate to obtain from representatives of the Company such information as is necessary to permit it to evaluate the merits and risks of its investment in the Company.

(iii) The Purchaser has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the acquisition of the Shares and to make an informed investment decision with respect to such acquisition.

(iv) The Purchaser can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(v) The Purchaser understands 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 six months and even then will not be available unless the 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.

(vi) The Purchaser is an "accredited investor," as defined in the Securities Act.

2. Restrictive Legends.

All certificates representing Shares shall have affixed thereto legends in substantially the following form, in addition to any other legends that may be required under federal or state securities laws:

> "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."

3. Additional Agreements. By its execution and delivery of **Exhibits A** and **B** attached hereto, the Purchaser hereby acknowledges and agrees that it will become (i) a party to that certain Voting Agreement, dated November 3, 2010 (the "**Voting Agreement**"), between the Company and certain stockholders of the Company,

as amended and/or restated from time to time, and (ii) a party to that certain Right of First Refusal and Co-Sale Agreement, dated November 3, 2010 (the "**Right of First Refusal and Co-Sale Agreement**"), between the Company and certain stockholders of the Company, as amended and/or restated from time to time.

4. "Market Stand-off" Agreement. The Purchaser hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the initial public offering of the Company and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days) or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), (i) lend; 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; or otherwise transfer or dispose of, directly or indirectly, any shares of common stock of the Company or any securities convertible into or exercisable or exchangeable (directly or indirectly) for common stock of the Company held immediately before the effective date of the registration statement for such offering or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of common stock or other securities of the Company, in cash, or otherwise. The foregoing provisions of this Section 4 shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, or the transfer of any shares to any trust for the direct or indirect benefit of the Purchaser or a child**,** stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of the Purchaser, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, and shall be applicable to the Purchaser only if all officers and directors are subject to the same restrictions and the Company uses commercially reasonable efforts to obtain a similar agreement from all stockholders individually owning more than one percent (1%) of the Company's outstanding common stock (after giving effect to conversion into common stock of all outstanding preferred stock of the Company). The underwriters in connection with such registration are intended third-party beneficiaries of this Section 4 and shall have the right, power, and authority to enforce the provisions hereof as though they were a party hereto. The Purchaser further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Section 4 or that are necessary to give further effect thereto.

5. Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

6. Binding Effect. This Agreement shall be binding upon and inure to the benefit of the Company and the Purchaser and their respective heirs, executors, administrators, legal representatives, successors and assigns. Notwithstanding the foregoing, the Purchaser may not assign, delegate or otherwise transfer any of its rights set forth herein, by operation of law or otherwise, without the prior written consent of the Company.

7. Notice. All notices required or permitted hereunder shall be delivered in accordance with Section 15.1 of the License Agreement.

8. Entire Agreement. This Agreement, together with (i) the License Agreement, (i) the Voting Agreement, and (iii) the Right of First Refusal and Co-Sale Agreement, supersedes all prior agreements and understandings relating to the subject matter of the foregoing agreements.

9. Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Purchaser.

10. Governing Law. This Agreement shall be construed, interpreted and enforced in

accordance with the internal laws of the State of Delaware without regard to any applicable conflicts of laws.

11. Purchaser's Acknowledgements. The Purchaser acknowledges that it/he/she: (a) has read this Agreement; (b) has been represented in the preparation, negotiation, and execution of this Agreement by legal counsel of the Purchaser's own choice or has voluntarily declined to seek such counsel; (c) understands the terms and consequences of this Agreement; and (d) is fully aware of the legal and binding effect of this Agreement.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the parties hereto have executed this Equity Issuance Agreement as of the day and year first above written.

VERASTEM, INC.

By: _____
Name: _____
Title: _____

[ ]

By: _____
Name: _____
Title: _____

EXHIBIT A

ADOPTION AGREEMENT

This Adoption Agreement ("**Adoption Agreement**") is executed on [ ], 2011, by the undersigned (the "**Holder**") pursuant to the terms of that certain Voting Agreement dated as of November 3, 2010 (the "**Agreement**"), by and among the Company and certain of its Stockholders, as such Agreement may be amended or amended and restated. Capitalized terms used but not defined in this Adoption Agreement shall have the respective meanings ascribed to such terms in the Agreement. By the execution of this Adoption Agreement, the Holder agrees as follows.

1.1 Acknowledgement. Holder acknowledges that Holder is acquiring certain shares of the capital stock of the Company (the "**Stock**"), for one of the following reasons (Check the correct box):

☐ as a transferee of Shares from a party in such party's capacity as an "Investor" bound by the Agreement, and after such transfer, Holder shall be considered an "Investor" and a "Stockholder" for all purposes of the Agreement.

☐ as a transferee of Shares from a party in such party's capacity as a "Key Holder" bound by the Agreement, and after such transfer, Holder shall be considered a "Key Holder" and a "Stockholder" for all purposes of the Agreement.

☐ as a new Investor in accordance with Section 6.1(a) of the Agreement, in which case Holder will be an "Investor" and a "Stockholder" for all purposes of the Agreement.

☒ in accordance with Section 6.1(b) of the Agreement, as a new party who is not a new Investor, in which case Holder will be a "Key Holder" and a "Stockholder" for all purposes of the Agreement.

1.2 Agreement. Holder hereby (a) agrees that the Stock, and any other shares of capital stock or securities required by the Agreement to be bound thereby, shall be bound by and subject to the terms of the Agreement and (b) adopts the Agreement with the same force and effect as if Holder were originally a party thereto.

1.3 Notice. Any notice required or permitted by the Agreement shall be given to Holder at the address or facsimile number listed below Holder's signature hereto.

HOLDER:

By: _____
Name and Title of Signatory:

Address:

Facsimile Number:

ACCEPTED AND AGREED:

VERASTEM, INC.

By: _____
Title: _____

EXHIBIT A

ADOPTION AGREEMENT

This Adoption Agreement ("**Adoption Agreement**") is executed on [ ], 2011, by the undersigned (the "**Holder**") pursuant to the terms of that certain Right of First Refusal and Co-Sale Agreement dated as of November 3, 2010 (the "**Agreement**"), by and among the Company, the Investors and the Key Holders, as such Agreement may be amended or amended and restated. Capitalized terms used but not defined in this Adoption Agreement shall have the respective meanings ascribed to such terms in the Agreement. By the execution of this Adoption Agreement, the Holder agrees as follows.

1.1 Acknowledgement. Holder acknowledges that Holder is acquiring certain shares of the capital stock of the Company (the "**Stock**"), for one of the following reasons (Check the correct box):

o as a transferee of Capital Stock from a party in such party's capacity as an "Investor" bound by the Agreement, and after such transfer, the Holder shall be considered an "Investor" for all purposes of the Agreement.

o as a transferee of Capital Stock from a party in such party's capacity as a "Key Holder" bound by the Agreement, and after such transfer, the Holder shall be considered a "Key Holder" for all purposes of the Agreement.

o as a new Investor in accordance with Section 6.11 of the Agreement, in which case the Holder will be an "Investor" for all purposes of the Agreement.

x as a new Key Holder in accordance with Section 6.17 of the Agreement, in which case the Holder will be a "Key Holder" for all purposes of the Agreement.

1.2 Agreement. The Holder hereby (a) agrees that the Stock, and any other shares of capital stock or securities required by the Agreement to be bound thereby, shall be bound by and subject to the terms of the Agreement and (b) adopts the Agreement with the same force and effect as if the Holder were originally a party thereto.

1.3 Notice. Any notice required or permitted by the Agreement shall be given to the Holder at the address or facsimile number listed below the Holder's signature hereto.

HOLDER:

By: _____
Name and Title of Signatory

Address:

ACCEPTED AND AGREED:

VERASTEM, INC.

By: _____

Title: _____

Facsimile Number:

VERASTEM, INC.

Restricted Stock Unit Agreement
Granted under 2012 Incentive Plan

NOTICE OF GRANT

This Restricted Stock Unit Agreement (this "Agreement") is made as of the Agreement Date between Verastem, Inc. (the "Company"), a Delaware corporation, and the Participant.

I. Agreement Date
Date:

II. Participant Information
Participant:
Participant Address:

III. Grant Information
Grant Date:
Restricted Stock Units:

IV. Vesting Table

Vesting Date	RSUs that Vest
First anniversary of the Grant Date	
Biannually on each Six-Month Anniversary of First Anniversary of the Grant Date until the Fourth Anniversary of the Grant Date	

This Agreement includes this Notice of Grant and the following General Terms and Conditions (attached as Exhibit A), which are expressly incorporated by reference in their entirety herein.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the Agreement Date.

VERASTEM, INC.	PARTICIPANT
Name: Title:	Name:

Restricted Stock Unit Agreement

EXHIBIT A

GENERAL TERMS AND CONDITIONS

For valuable consideration, receipt of which is acknowledged, the parties hereto agree as follows:

1. Grant of RSUs; Condition of Grant. In consideration of services rendered to the Company by the Participant, the Company has granted to the Participant, subject to the terms and conditions set forth in this Agreement and in the Company's 2012 Incentive Plan (the "Plan"), an award of Restricted Stock Units (the "RSUs"), representing an award of the number of RSUs (the "Share Number") set forth in the Notice of Grant that forms part of this Agreement (the "Notice of Grant"). The RSUs entitle the Participant to receive, upon and subject to the vesting of the RSUs (as described in Section 2 below), one share of common stock, $0.0001 par value per share, of the Company (the "Common Stock") for each RSU that vests. The shares of Common Stock that are issuable upon vesting of the RSUs are referred to in this Agreement as the "Shares."

2. Vesting of the RSUs; Issuance of Shares.

(a) Vesting of the RSUs. Subject to the other provisions of this Section 2, the RSUs shall vest in accordance with the Vesting Table set forth in the Notice of Grant (the "Vesting Table"). Any fractional RSU resulting from the application of the percentages in the Vesting Table shall be rounded down to the nearest whole number of RSUs. Within thirty days of each vesting date shown in the Vesting Table (the "Vesting Dates"), the Company will issue to the Participant, in certificated or uncertificated form, such number of Shares as is equal to the number of RSUs that vested on such Vesting Date and shall deliver such Shares to the Participant, or to the broker designated by the Participant.

(b) Employment Termination.

(1) Termination of the Participant. Except to the extent specifically otherwise provided herein, in the Plan or in another agreement between the Company and the Participant, upon the termination of the Participant's employment with the Company for any reason or no reason, all RSUs that have not vested pursuant to Section 2(a) shall be automatically forfeited as of such termination.

(2) Employment with Affiliated or Successor Companies. For purposes of this Agreement, employment with the Company shall include employment with a parent or subsidiary of the Company, or any successor to the Company.

3. Dividends. The RSUs shall have no rights with respect to dividends declared by the Company with respect to its capital stock, provided that the foregoing shall not prohibit or otherwise limit the adjustment of the terms of this Agreement in accordance with Section 9 of the Plan.

4. Withholding Taxes.

(a) Acknowledgments; No Section 83(b) Election. The Participant acknowledges that he or she is responsible for obtaining the advice of the Participant's own tax advisors with respect to the grant of the RSUs and the Shares upon vesting thereof and the Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents with respect to the tax consequences relating to the RSUs or Shares. The Participant understands that the Participant (and not the Company) shall be responsible for the Participant's tax liability that may arise in connection with the acquisition, vesting and/or disposition of the RSUs and the Shares underlying the RSUs. The Participant acknowledges that no election under Section 83(b) of the Internal Revenue Code, as amended, is available with respect to the issuance of the RSUs and the Shares underlying the RSUs.

(b) Withholding. As a condition to the granting of the RSUs and the vesting thereof, the Participant acknowledges and agrees that he or she is responsible for the payment of income and employment taxes (and any other taxes required to be withheld) payable in connection with the grant or vesting of, or otherwise in connection with, the RSUs. Accordingly, the Participant agrees to remit to the Company or any applicable subsidiary an amount sufficient to pay such taxes. Such payment shall be made to the Company or the applicable subsidiary of the Company in a form that is reasonably acceptable to the Company, as the Company may determine in its discretion. The Company in its discretion may retain and withhold from delivery at the time of vesting that number of shares of Common Stock having a fair market value equal to the statutory minimum withholding taxes owed by the Participant, which retained shares shall fund the payment of such taxes by the Company on behalf of the Participant. Alternatively, the Company may require the Participant to provide a designated broker with irrevocable instructions directing the designated broker to, on the date of the designated broker's receipt of any shares of Common Stock in accordance with Section 2, sell in accordance with ordinary principles of best execution that number of such shares of Common Stock as is necessary to yield net proceeds to the Participant equal to the amount withholding taxes with respect to the income recognized by the Participant as a result of the vesting of the RSUs (based on the minimum statutory withholding rates for all tax purposes, including payroll and social taxes, that are applicable to such income) and remit such proceeds to the Company in satisfaction of such tax withholding obligations of the Company.

5. Transferability.

(a) Restrictions on Transfer. The Participant shall not sell, assign, transfer, pledge, hypothecate or otherwise encumber, by operation of law or otherwise, any RSUs, or any interest therein, until such RSUs have vested and the Shares underlying the RSUs have been issued.

(b) Agreement in Connection with Public Offering. The Participant agrees, in connection with an 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 FINRA Rule 2711(f)(4) or any similar successor provision), except, in the discretion of the Company, to the extent required to satisfy the tax withholding obligations set forth in Section 4(b) of this Agreement, 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. Miscellaneous.

(a) No Rights to Employment. The Participant acknowledges and agrees that the grant of the RSUs and their vesting pursuant to Section 2 do not constitute an express or implied promise of continued employment for the vesting period of the RSUs, or for any period.

(b) Section 409A. This Agreement is intended to comply with or be exempt from the requirements of Section 409A and shall be construed consistently therewith. In any event, the Company makes no representations or warranties and will have no liability to the Participant or to any other person, if any of the provisions of or payments under this Agreement are determined to constitute nonqualified deferred compensation subject to Section 409A but that do not satisfy the requirements of that Section.

(c) Entire Agreement. This Agreement and the Plan constitute the entire agreement between the parties, and supersede all prior agreements and understandings, relating to the subject matter of this Agreement; provided that any separate employment or severance agreement between the Company and the Participant that includes terms relating to the acceleration of vesting of equity awards shall not be superseded by this Agreement. In the event of a conflict between the terms and provisions of the Plan and the terms and provisions of this Agreement, the Plan terms and provisions shall prevail.

(d) Governing Law. This Agreement shall be construed, interpreted and enforced in accordance with the internal laws of the State of Delaware, without regard to any applicable conflict of law principles.

(e) Authority of Compensation Committee. In making any decisions or taking any actions with respect to the matters covered by this Agreement, the Compensation Committee shall have all of the authority and discretion, and shall be subject to all of the protections, provided for in the Plan. All decisions and actions by the Compensation Committee with respect to this Agreement shall be made in the Compensation Committee's discretion and shall be final and binding on the Participant.

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated November 2, 2011, except for Notes 12(b), (c) and (d), as to which the date is January 10, 2012, in Amendment No. 3 to the Registration Statement (Form S-1 No. 333-177677) and related Prospectus of Verastem, Inc.

/s/ Ernst & Young LLP

Boston, Massachusetts
January 10, 2012

QuickLinks