Use these links to rapidly review the document
TABLE OF CONTENTS
CORVUS PHARMACEUTICALS, INC.

Table of Contents

**As filed with the Securities and Exchange Commission on February 8, 2016.**

**Registration No. 333-208850**

# UNITED STATES
# SECURITIES AND EXCHANGE COMMISSION

**Washington, D.C. 20549**

# AMENDMENT NO. 1
# TO
# FORM S-1

**REGISTRATION STATEMENT**
**Under**
**The Securities Act of 1933**

# Corvus Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

| **Delaware** | **2834** | **46-4670809** |
|---|---|---|
| (State or other jurisdiction of incorporation or organization) | (Primary Standard Industrial Classification Code Number) | (I.R.S. Employer Identification Number) |

**863 Mitten Road, Suite 102**
**Burlingame, CA 94010**
**(650) 900-4520**
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Richard A. Miller, M.D.**
**President and Chief Executive Officer**
**Corvus Pharmaceuticals, Inc.**
**863 Mitten Road, Suite 102**
**Burlingame, CA 94010**
**(650) 900-4520**
(Name, address, including zip code, and telephone number, including area code, of agent for service)

**Copies to:**

| **Alan C. Mendelson, Esq.**<br>**Kathleen M. Wells, Esq.**<br>**Latham & Watkins LLP**<br>**140 Scott Drive**<br>**Menlo Park, CA 94025**<br>**Telephone: (650) 328-4600**<br>**Facsimile: (650) 463-2600** | **Leiv Lea**<br>**Chief Financial Officer**<br>**Corvus**<br>**Pharmaceuticals, Inc.**<br>**863 Mitten Road, Suite 102**<br>**Burlingame, CA 94010**<br>**Telephone: (650) 900-4520** | **Bruce K. Dallas, Esq.**<br>**Davis Polk & Wardwell LLP**<br>**1600 El Camino Real**<br>**Menlo Park, CA 94025**<br>**Telephone: (650) 752-2000**<br>**Facsimile: (650) 752-2115** |
|---|---|---|

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

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, as amended, 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, please 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 |
|---|---|---|---|

**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, as amended, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

Table of Contents

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.

SUBJECT TO COMPLETION, DATED , 2016

# Shares


## Common Stock

This is an initial public offering of shares of common stock of Corvus Pharmaceuticals, Inc. Prior to this offering, there has been no public market for our common stock. The initial public offering price is expected to be between $ and $ per share. We have applied to list our common stock on the NASDAQ Global Market under the symbol "CRVS."

We are an "emerging growth company," as the term is used in the Jumpstart Our Business Startups Act of 2012, and we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

We have granted the underwriters an option for a period of 30 days to purchase an additional shares of common stock.

**Investing in our common stock involves risks. Please see "Risk Factors" beginning on page 11.**

| | Price to Public | Underwriting Discounts and Commissions[(1)] | Proceeds to Corvus Pharmaceuticals |
|---|---|---|---|
| Per share | $ | $ | $ |
| Total | $ | $ | $ |

(1) See "Underwriting" for a description of the compensation payable to the underwriters.

Delivery of the shares of common stock is expected to be made on or about , 2016.

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.

**Credit Suisse** **Cowen and Company**

**Guggenheim Securities**

**Cantor Fitzgerald & Co.** **BTIG**

The date of this prospectus is , 2016

## TABLE OF CONTENTS



Neither we nor the underwriters have authorized anyone to provide you with information that is different from that contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to 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 and the underwriters are offering to sell shares of common stock and seeking offers to buy shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date on the front of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock.

Unless the context requires otherwise, in this prospectus the terms "Corvus," "Corvus Pharmaceuticals," the "Company," "we," "us" and "our" refer to Corvus Pharmaceuticals, Inc., a Delaware corporation.

Our logo and some of our trademarks and tradenames are used in this prospectus. This prospectus also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks, tradenames and service marks referred to in this prospectus may appear without the ®, ™ and SM symbols, but those references are not intended to indicate in any way that we will not assert to the fullest extent under applicable law our rights or the rights of the applicable licensor to these trademarks, tradenames and service marks.

## PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before deciding to invest in our common stock, you should read this entire prospectus carefully, including the sections of this prospectus entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes contained elsewhere in this prospectus.*

### Corvus Pharmaceuticals, Inc.

**Overview**

We are a clinical stage biopharmaceutical company focused on the development and commercialization of novel immuno-oncology therapies that are designed to harness the immune system to attack cancer cells. Since we began operations in November 2014, we have built a pipeline of four immuno-oncology programs, three of which focus on the adenosine-cancer axis to modulate an immune response. Our lead product candidate, CPI-444, is an oral, small molecule antagonist of the A2A receptor for adenosine, an immune checkpoint. In January 2016, we began enrolling patients in a large expansion cohort trial for CPI-444. This Phase 1/1b clinical trial is designed to examine safety, tolerability, biomarkers and preliminary efficacy of CPI-444 in several solid tumor types, both as a single agent and in combination with Genentech, Inc.'s investigational cancer immunotherapy, atezolizumab, a fully humanized monoclonal antibody targeting PDL-1. We have a lead development candidate for our second program, an anti-CD73 monoclonal antibody that inhibits the production of adenosine, and plan to select development candidates for our other two programs in 2016. We believe the breadth and status of our pipeline demonstrates our management team's expertise in understanding and developing immuno-oncology assets as well as in identifying product candidates that can be in-licensed and further developed internally to treat many types of cancer. We hold worldwide rights to all of our product candidates.

***Background in Immuno-oncology***

Immuno-oncology therapies that stimulate or enhance immune responses to tumors are a new and emerging approach with several potential benefits over existing therapies. First, the immune system exhibits immunologic diversity and selectivity, which enables it to respond to a large number of potential targets. Second, once triggered, the immune response can be amplified, offering the potential to enhance the efficacy of treatment. Third, once activated, the immune system possesses immunologic memory, potentially providing for a durable and long-lasting response. Some of the most successful types of immuno-oncology therapies are immune checkpoint inhibitors. Immune checkpoints are signaling molecules produced by or expressed on immune cells that act to shut down or block an immune response. In a healthy person, these checkpoints function to limit an immune response to ensure that the immune system does not overreact, which could lead to excessive inflammation and tissue damage, as occurs in patients with autoimmune diseases or allergies. Tumor cells have evolved to activate these checkpoints to shield the tumor from immune response attacks, but studies have shown that immune checkpoint inhibitors can counter these tumor-protective measures and unleash the immune system's cancer-destroying properties.

*Adenosine-Cancer Axis and Anti-tumor Immune Response*

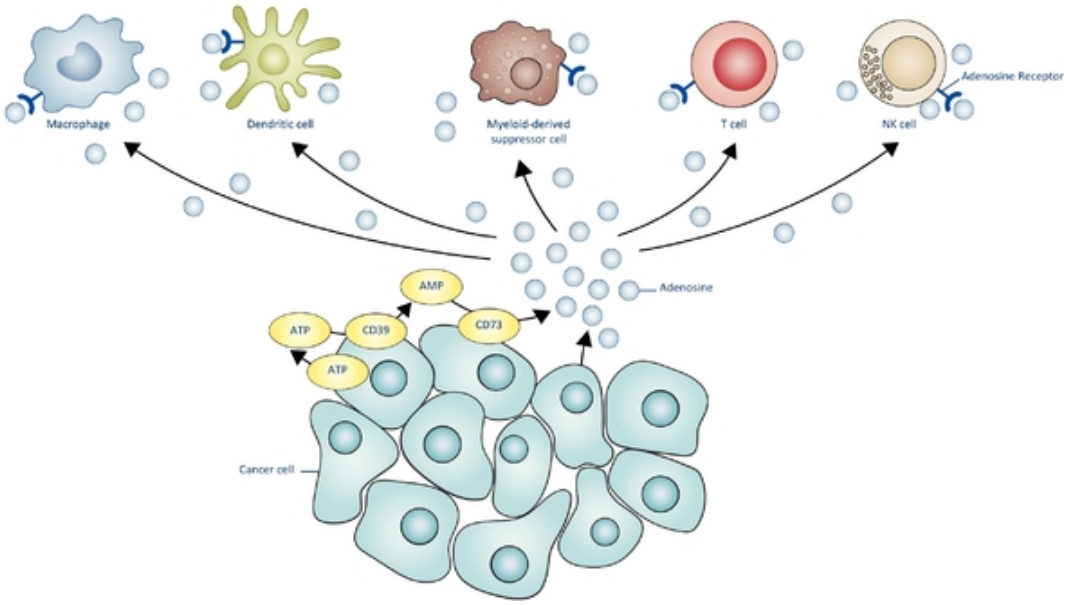
Adenosine activates an immune checkpoint, the adenosine A2A receptor, that is used by the body to limit inflammation and immune responses. The production of adenosine during acute inflammatory processes is mediated by CD73, an enzyme expressed on the surface of several types of immune cells, tumor cells and cells of certain other tissues. As a self-protective maneuver, many tumor types actively sustain increased levels of extracellular adenosine by production through CD73 or by direct secretion of

adenosine. These increased levels of adenosine interact with the A2A and A2B receptors expressed on several cells of the immune system, including T-cells, natural killer (NK) cells, macrophages, dendritic cells and myeloid derived suppressor cells, as well as other cells, which has the effect of dampening the immune response to the tumors, a system known as the adenosine-cancer axis.

Overall, adenosine hinders the immune response to tumors by both blocking the activation and effectiveness of immune cells capable of destroying tumor cells, and by increasing the number of immune cells that act to suppress immune cells from responding to the tumor. As tumor cells evolve and form cancerous growths, they utilize these processes to evade immune attack and promote their survival. However, several preclinical tumor model studies have shown that treatment with A2A receptor inhibitors can counter these survival mechanisms and lead to tumor regression and that this effect can be further enhanced when such treatment is administered in combination with various other checkpoint inhibitors, such as anti-programmed death 1 (PD-1) therapies and anti-cytotoxic T-lymphocyte-associated antigen-4 (CTLA-4) therapies.

The following figure provides an overview of adenosine production by tumors and its effects on the immune system:

**Adenosine-Cancer Axis**
**Immunosuppressive Effects of Adenosine Mediated through Multiple Pathways**

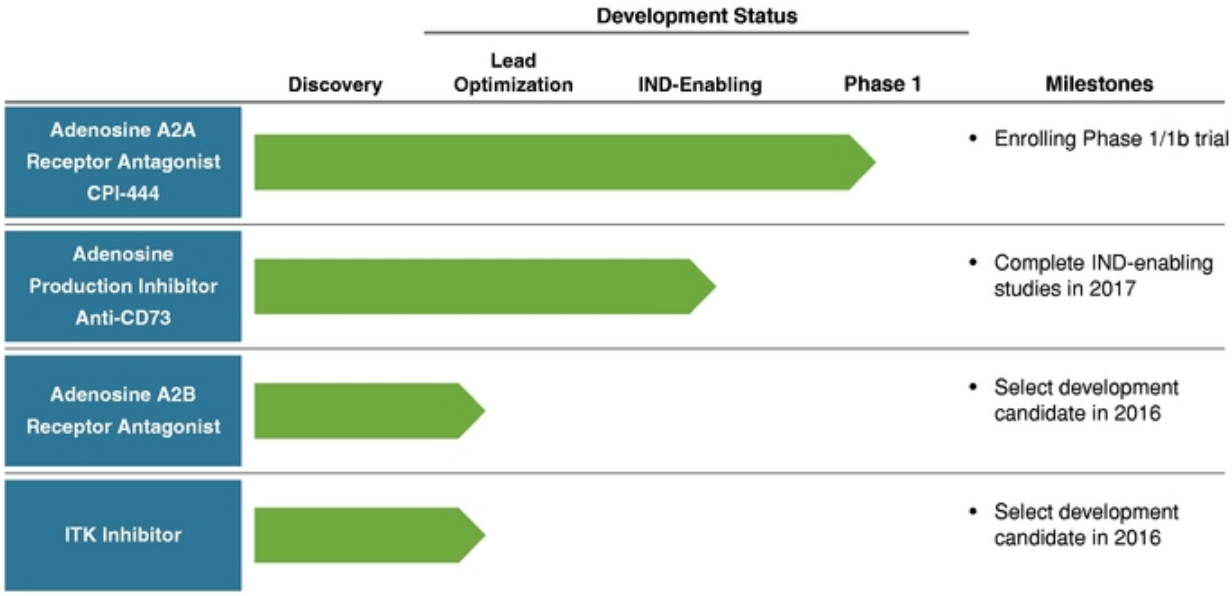



***Our Product Pipeline***

We are developing novel checkpoint inhibitors and immuno-oncology therapies that we believe may overcome some of the limitations of current immuno-oncology therapies. Three of our programs are aimed at disabling cancer's ability to subvert immune attack by inhibiting adenosine in the tumor microenvironment or by blocking its production by tumors. Our fourth program is aimed at developing product candidates that regulate T-cell activation and differentiation by inhibiting interleukin-2 inducible kinase (ITK). We intend to commercialize any approved product candidates primarily in the United States and Europe for any oncology indications our product candidates are approved for. We expect cancer patients or their healthcare providers to be our primary customers for any approved product candidates and expect that our commercial sales of such product candidates will depend on the

availability of adequate coverage and reimbursement from government health administration authorities, private health insurers and other third-party payors.

The following chart summarizes key information regarding our current product candidate pipeline and expected milestones:




- ***CPI-444 Adenosine A2A Receptor Antagonist***. In February 2015, we in-licensed patent rights and know-how related to CPI-444 and related molecules from Vernalis (R&D) Limited (Vernalis), where it was under development for treatment of Parkinson's disease and other neurologic diseases. Vernalis and its corporate partner conducted two Phase 1 clinical trials in healthy volunteers and one Phase 1b trial in patients with attention deficit and hyperactivity disorder (ADHD), with an aggregate of approximately 75 healthy volunteers and patients dosed. These trials provided early indications of a favorable safety profile and assessed pharmacokinetics, oral bioavailability and receptor occupancy for CPI-444. We conducted further testing in *in vitro* and *in vivo* models to evaluate CPI-444's immune-enhancing and anti-tumor properties. In these studies, orally administered CPI-444 inhibited tumor growth in multiple mouse models of cancer as a single agent, in combination with anti-PD-1 agents and in combination with anti-PDL-1 agents.

  In October 2015, we filed an investigational new drug (IND) application for CPI-444 for treatment of several solid tumor types. In January 2016, we began enrolling patients in a large expansion cohort trial for CPI-444. This Phase 1/1b clinical trial is designed to examine safety, tolerability, biomarkers and preliminary efficacy of CPI-444, both as a single agent and in combination with Genentech's atezolizumab, and will include patients with different types of solid tumors enrolled in disease-specific cohorts.

- ***Anti-CD73 Adenosine Production Inhibitor***. In December 2014, we in-licensed from The Scripps Research Institute (Scripps) a mouse hybridoma clone expressing an anti-human CD73 antibody, from which we have developed a humanized anti-CD73 monoclonal antibody. We have further modified this antibody to improve binding and inhibition of catalytic activity. CD73 is often

found on lymphocytes, tumors and other tissues, and is believed to play an important role in tumor immune suppression by catalyzing the production of extracellular adenosine. In preclinical *in vitro* studies, our humanized monoclonal anti-CD73 antibody has been shown to inhibit the catalytic activity of CD73, resulting in the blocking of extracellular adenosine production by tumor cells, which we believe could stimulate or enhance immune response to tumors. We are initiating IND-enabling studies for the development of this antibody for potential clinical trials in patients with advanced cancer and plan to complete these studies in 2017.

- ***Adenosine A2B Receptor Antagonist***. We have in-licensed several selective and potent adenosine A2B receptor antagonists from Vernalis. In addition, we are synthesizing and have identified other A2B receptor antagonists from our internal research program. Adenosine A2B receptors have recently been found to play an important role in the immune response to tumors. Similar to adenosine A2A receptors, adenosine binds to adenosine A2B receptors, which leads to immunosuppression. We intend to further develop our A2B agents to improve potency, selectivity, pharmacokinetic behavior and immune enhancing properties. We expect to conduct preclinical studies similar to those we have conducted for CPI-444 in order to select a development candidate in 2016. Upon selection, we intend to conduct further IND-enabling studies and potential Phase 1 clinical trials.

- ***ITK Inhibitor***. We are currently developing a series of selective, covalent inhibitors of ITK and are evaluating them in preclinical studies for potency, safety and efficacy. ITK, an enzyme that functions in T-cell signaling and differentiation, is expressed predominantly in T-cells, which are lymphocytes that play a vital role in immune response. One of the key survival mechanisms of tumors is believed to be the reprogramming of T-cells to create an inflammatory environment that inhibits anti-tumor immune response and favors tumor growth. We believe highly selective inhibitors of this enzyme will facilitate induction of T-cell anti-tumor immunity and also may be useful in the treatment of T-cell lymphomas. We plan to select a lead development candidate under this program in 2016 and, following selection, advance the candidate into clinical trials in patients with T-cell lymphoma and in patients with solid tumors.

Our founders and management team consist of industry veterans who played significant roles in the discovery and development of successful oncology and immunology antibodies and drugs, including rituximab and ibrutinib. Since our inception, we have expanded our management team and established collaborations with leading biotechnology companies, including Genentech, and collaborative relationships with research institutions, including The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins University. With our management team's expertise in developing both small molecule and antibody-based oncology treatments, we believe we are well positioned to identify and develop novel therapeutic agents that have diverse but complementary mechanisms of action, allowing for their potential integration into immuno-oncology treatment regimens for a broad variety of cancers.

We have attracted initial funding from many leading healthcare investors and funds. Through December 31, 2015, we have raised net cash proceeds of $108.1 million in convertible preferred stock financings and as of December 31, 2015, we had cash, cash equivalents and marketable securities of $94.4 million and an accumulated deficit of $31.5 million.

**Our Strategy**

Our goal is to become a leader in the field of immuno-oncology treatments for multiple cancer indications. Specific elements of our strategy are:

- leverage our expertise in immunology and oncology to identify, develop and commercialize new product candidates;

- utilize existing pre-clinical and clinical data to advance our lead product candidate, CPI-444, in to clinical trials for oncology;
- advance product candidates for use alone or in combination with other oncology treatments;
- identify biomarkers to select patients and monitor treatment with our product candidates; and
- pursue collaborative relationships, partnerships and in-licensing opportunities to help advance and expand our product candidate portfolio.

**Risks Associated with Our Business**

Our ability to implement our business strategy is subject to numerous risks of which you should be aware in making an investment decision. These risks are described more fully in the section entitled "Risk Factors" immediately following this prospectus summary. These risks include, among others:

- We have a limited operating history, have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.
- Even if this offering is successful, we will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development, other operations or commercialization efforts.
- Our business currently depends substantially on the success of CPI-444, which will require significant clinical testing before we can seek regulatory approval and potentially launch commercial sales. If we are unable to obtain regulatory approval for, or successfully commercialize, CPI-444, our business will be materially harmed.
- Any termination or suspension of, or delays in the commencement or completion of, our planned clinical trials could result in increased costs to us, delay or limit our ability to generate revenue and adversely affect our commercial prospects.
- All of our product candidates are still in preclinical or early-stage clinical development. If we are unable to commercialize our product candidates or if we experience significant delays in obtaining regulatory approval for, or commercializing, any or all of our product candidates, our business will be materially and adversely affected.
- We rely on third parties to conduct some or all aspects of our product manufacturing, research and preclinical and clinical testing, and these third parties may not perform satisfactorily.
- Our rights to develop and commercialize our product candidates are subject in part to the terms and conditions of licenses granted to us by other companies.
- Our success depends on our ability to protect our intellectual property and our proprietary technologies.

In addition, there are other risks related to our common stock and this offering that you should consider carefully before deciding whether to invest in our common stock. These risks and others are described more fully in the section entitled "Risk Factors" immediately following this prospectus summary. These risks include, among others:

- An active, liquid and orderly market for our common stock may not develop, and you may not be able to resell your common stock at or above the public offering price.
- Because a small number of our existing stockholders own a majority of our voting stock, your ability to influence corporate matters will be limited.

**Corporate Information**

We were incorporated in Delaware on January 27, 2014 and began operations in November 2014. Our principal executive offices are located at 863 Mitten Road, Suite 102, Burlingame, California 94010, and our telephone number is (650) 900-4520. Our website address is http://corvuspharma.com. The information contained on our website is not part of or incorporated by reference in this prospectus, and you should not consider the contents of our website in making an investment decision with respect to our common stock.

**Implications of Being an Emerging Growth Company**

We are an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012 (JOBS Act). We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year following the fifth anniversary of the completion of this offering, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.0 billion, (3) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (Exchange Act), which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such fiscal year or (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period. An emerging growth company may take advantage of specified reduced reporting requirements and is relieved of certain other significant requirements that are otherwise generally applicable to public companies. As an emerging growth company,

- we may present only two years of audited financial statements, plus unaudited condensed financial statements for any interim period, and related management's discussion and analysis of financial condition and results of operations;
- we may avail ourselves of the exemption from the requirement to obtain an attestation and report from our auditors on the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley);
- we may provide less extensive disclosure about our executive compensation arrangements; and
- we may not require stockholder non-binding advisory votes on executive compensation or golden parachute arrangements.

We have chosen to opt out of the extended transition periods available to emerging growth companies under the JOBS Act for complying with new or revised accounting standards. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition periods for complying with new or revised accounting standards is irrevocable.

## THE OFFERING

| | |
|---|---|
| Issuer | Corvus Pharmaceuticals, Inc. |
| Common stock offered by us in this offering | shares. |
| Common stock to be outstanding after this offering | shares. |
| Underwriters' option to purchase additional shares | shares. |
| Use of Proceeds | We estimate that the net proceeds from this offering will be approximately $ million, or approximately $ million if the underwriters exercise in full their option to purchase additional shares of common stock, at an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We expect to use our net proceeds from this offering to fund research and development of our product candidates under development, including CPI-444, as well as for potential future development programs, potential in-licensing of technology or products, capital expenditures, working capital and other general corporate purposes. See "Use of Proceeds." |
| Risk Factors | See "Risk Factors" beginning on page 11 and other information included in this prospectus for a discussion of factors that you should consider carefully before deciding whether to invest in our common stock. |
| Proposed NASDAQ Global Market symbol | "CRVS." |

In this prospectus, the number of shares of common stock to be outstanding after this offering is based on shares of common stock outstanding as of December 31, 2015, and excludes the following:

- 784,136 shares of common stock issuable upon exercise of stock options outstanding as of December 31, 2015 under our 2014 Equity Incentive Plan, having a weighted-average exercise price of $4.09 per share;
- 2,559,499 shares of common stock reserved for issuance pursuant to future awards under our 2014 Equity Incentive Plan as of December 31, 2015. Of such shares, we intend to grant option awards exercisable for approximately 948,250 shares to certain of our employees, executive officers and directors upon the pricing of this offering with an exercise price equal to the initial public offering price;
- 3,051,750 shares of common stock reserved for issuance pursuant to future awards under our 2016 Equity Incentive Award Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering; and
- 200,000 shares of common stock reserved for future issuance under our 2016 Employee Stock Purchase Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part.

Except as otherwise indicated, all information contained in this prospectus assumes the following:

- the filing and effectiveness of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws, each of which will occur immediately prior to the consummation of this offering;
- the conversion of all of our outstanding shares of convertible preferred stock as of December 31, 2015 into an aggregate of 14,274,741 shares of common stock immediately prior to the consummation of this offering;
- no exercise of outstanding stock options described above subsequent to December 31, 2015; and
- no exercise of the underwriters' option to purchase additional shares of common stock.

We refer to our Series A and Series B convertible preferred stock collectively as "convertible preferred stock" in this prospectus, as well as for financial reporting purposes and in the financial tables included in this prospectus, as more fully explained in Note 7 to our financial statements included in this prospectus.

## SUMMARY FINANCIAL DATA

The following summary financial data for the period from January 27, 2014 (inception) to December 31, 2014 and for the year ended December 31, 2015 and the balance sheet data as of December 31, 2014 and 2015 have been derived from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of our future results. You should read the following selected financial data in conjunction with "Management's Discussion and Analysis of Financial Condition and the Results of Operations" and our audited financial statements and the related notes included elsewhere in this prospectus.

| (In thousands, except share and per share data) | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| **Statements of Operations and Comprehensive Loss Data:** | | |
| Operating expenses: | | |
| Research and development | $ 38 | $ 11,352 |
| General and administrative | 123 | 2,418 |
| Total operating expenses | 161 | 13,770 |
| Loss from operations | (161) | (13,770) |
| Change in fair value of convertible preferred stock liability | — | (17,600) |
| Interest income | — | 35 |
| Net loss | $ (161) | $ (31,335) |
| Net loss per share—basic and diluted[(1)] | $ (0.95) | $ (83.86) |
| Shares used to compute net loss per share—basic and diluted[(1)] | 170,278 | 373,643 |
| Pro forma net loss per share—basic and diluted (unaudited)[(1)] | $ (0.30) | $ (1.54) |
| Shares used to compute pro forma net loss per share—basic and diluted (unaudited)[(1)] | 530,859 | 8,894,425 |

(1) See Note 3 to our audited financial statements included elsewhere in this prospectus for an explanation of the calculations of our net loss per share—basic and diluted, the shares used to compute the net loss per share—basic and diluted, pro forma net loss per share—basic and diluted, and the shares used to compute the pro forma net loss per share—basic and diluted.

The table below presents our balance sheet as of December 31, 2015:

- on an actual basis;
- on a pro forma basis to give effect to: (1) the conversion of all of our outstanding shares of convertible preferred stock as of December 31, 2015 into an aggregate of 14,274,741 shares of common stock and (2) the filing and effectiveness of our amended and restated certificate of incorporation, which will occur, in each case, immediately prior to the consummation of this offering; and
- on a pro forma as adjusted basis to give further effect to the sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

| | As of December 31, 2015 | | |
|---|---|---|---|
| (In thousands) | Actual | Pro forma | Pro forma as Adjusted[1] |
| **Balance Sheet Data:** | | | |
| Cash and cash equivalents | $ 4,105 | $ 4,105 | $ |
| Marketable securities | 90,281 | 90,281 | |
| Working capital | 92,593 | 92,593 | |
| Total assets | 98,459 | 98,459 | |
| Convertible preferred stock | 125,780 | — | |
| Additional paid-in capital | 440 | 126,218 | |
| Accumulated deficit | 31,496 | 31,496 | |
| Total stockholders' (deficit) equity | (31,101) | 94,679 | |

(1) Each $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease, respectively, the amount of pro forma as adjusted cash, working capital, total assets and total stockholders' equity by $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase or decrease of 1,000,000 in the number of shares we are offering would increase or decrease, respectively, the amount of pro forma as adjusted cash, working capital, total assets and stockholders' equity by approximately $ million, assuming the assumed initial public offering price per share, as set forth on the cover page of this prospectus, remains the same. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

## RISK FACTORS

*Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including our financial statements and related notes included elsewhere in this prospectus and "Management's Discussion and Analysis of Financial Condition and Results of Operations," before making an investment decision. If any of the following risks are realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our common stock could decline and you could lose part or all of your investment.*

### Risks Related to Our Limited Operating History, Financial Condition and Capital Requirements

***We have a limited operating history, have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.***

We are a clinical stage pharmaceutical company with a limited operating history. Pharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. To date, we have focused primarily on developing our lead product candidate, CPI-444, which is currently our only product candidate that has undergone clinical development, and researching additional product candidates. We have incurred significant operating losses since we were founded in January 2014 and have not yet generated any revenue from sales. If our products are not approved, we may never generate any revenue. We incurred a net loss of $0.2 million for the period from January 27, 2014 (inception) to December 31, 2014 and $31.3 million for the year ended December 31, 2015. We expect to continue to incur losses for the foreseeable future, and we anticipate these losses will increase as we continue our development of, seek regulatory approval for and begin to commercialize CPI-444, and as we develop other product candidates. Even if we achieve profitability in the future, we may not be able to sustain it in subsequent periods. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders' equity and results of operations.

***Even if this offering is successful, we will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development, other operations or commercialization efforts.***

Since commencing our operations in 2014, substantially all of our efforts have been focused on the research and development of CPI-444. We believe that we will continue to expend substantial resources for the foreseeable future as we continue clinical development of, seek regulatory approval for and prepare for the commercialization of CPI-444, as well as develop other product candidates. These expenditures will include costs associated with research and development, conducting preclinical studies and clinical trials, obtaining regulatory approvals, manufacturing and supply, sales and marketing and general operations. In addition, other unanticipated costs may arise. Because the outcome of any clinical trial and/or regulatory approval process is highly uncertain, we may not be able to accurately estimate the actual amounts necessary to successfully complete the development, regulatory approval process and commercialization of CPI-444 or any other product candidates.

As of December 31, 2015, we had capital resources consisting of cash, cash equivalents and marketable securities of $94.4 million. We do not expect our existing capital resources together with the net proceeds from this offering to be sufficient to enable us to fund the completion of our clinical trials and remaining development program of CPI-444 through commercialization. In addition, our operating plan may change as a result of many factors, including those described below as well as others currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity, debt financings or other sources, such as strategic collaborations. Such financing would result in dilution to stockholders, imposition of debt covenants and repayment obligations or other restrictions that may affect our business. If we raise additional capital through strategic collaboration agreements, we may have to relinquish valuable rights to our product candidates, including possible

future revenue streams. In addition, additional funding may not be available to us on acceptable terms, or at all, and any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. Furthermore, even if we believe we have sufficient funds for our current or future operating plans, we may seek additional capital due to favorable market conditions or strategic considerations.

The amount and timing of any expenditures needed to implement our development and commercialization programs will depend on numerous factors, including, but not limited to:

- the type, number, scope, progress, expansions, results of and timing of our planned preclinical studies and clinical trials of CPI-444 and any of our other product candidates which we are pursuing or may choose to pursue in the future;
- the need for, and the progress, costs and results of, any additional clinical trials of CPI-444 or any of our other product candidates we may initiate based on the results of our planned clinical trials or discussions with the FDA, including any additional trials the FDA or other regulatory agencies may require;
- the costs of obtaining, maintaining and enforcing our patents and other intellectual property rights;
- the costs and timing of obtaining or maintaining manufacturing for CPI-444 and our other product candidates, including commercial manufacturing if any product candidate is approved;
- the costs and timing of establishing sales and marketing capabilities and enhanced internal controls over financial reporting;
- our ability to achieve sufficient market acceptance, coverage and reimbursement from third-party payors and adequate market share for our product candidates;
- the terms and timing of establishing collaborations, license agreements and other partnerships;
- costs associated with any new product candidates that we may develop, in-license or acquire;
- the effect of competing technological and market developments;
- our ability to attract, hire and retain qualified personnel;
- our ability to establish and maintain partnering arrangements for development; and
- the costs associated with being a public company.

Several of these factors are outside of our control and if we are unable to obtain funding on a timely basis, we will be unable to complete the clinical trials for CPI-444 and our other product candidates, and we may be required to significantly curtail some or all of our activities.

**Risks Related to the Discovery and Development of Our Product Candidates**

***Our business currently depends substantially on the success of CPI-444, which will require significant clinical testing before we can seek regulatory approval and potentially launch commercial sales, and which may not be successful in clinical trials, receive regulatory approval or be successfully commercialized, even if approved. If we are unable to obtain regulatory approval for, or successfully commercialize, CPI-444, our business will be materially harmed.***

Our product candidates are in the early stage of development and will require additional preclinical studies, substantial clinical development and testing, manufacturing bridging studies and process validation and regulatory approval prior to commercialization. To date, we have only one product candidate that has been the focus of advanced development efforts: CPI-444. We have invested, and will continue to invest, a significant portion of our time and financial resources in the development of CPI-444. However, we need to raise sufficient funds for, and successfully enroll and complete, our planned clinical trials of CPI-444. We cannot be certain that CPI-444 will be successful in clinical trials, and CPI-444 may not receive regulatory approval even if it is successful in clinical trials.

Even if we do receive regulatory approval necessary for the commercialization of CPI-444, we do not expect that such commercialization will occur for at least the next several years. In particular, the future regulatory and commercial success of CPI-444 is subject to a number of risks, including the following:

- we may not have sufficient financial and other resources to complete the necessary clinical trials for CPI-444;
- we may not be able to demonstrate evidence of efficacy and safety for CPI-444 to the satisfaction of regulatory authorities;
- the results of our clinical trials may not meet the level of statistical or clinical significance required by the FDA or comparable foreign regulatory bodies for marketing approval;
- subjects in our clinical trials may die or suffer other adverse effects for reasons that may or may not be related to CPI-444;
- we do not know the degree to which CPI-444 will be accepted as a therapy, even if approved; and
- we may not be able to obtain, maintain or enforce our patents and other intellectual property rights.

Of the large number of drugs in development in the pharmaceutical industry, only a small percentage result in the submission of a New Drug Application (NDA) or Biologics License Application (BLA) to the FDA or comparable marketing applications to foreign regulatory authorities, and even fewer are approved for commercialization. Furthermore, even if we do receive regulatory approval to market CPI-444, any such approval may be subject to limitations on the indicated uses for which we may market the product. Accordingly, even if we are able to obtain the requisite financing to continue to fund our development programs, we cannot assure you that CPI-444 will be successfully developed or commercialized. If we or any of our potential future collaborators are unable to develop, or obtain regulatory approval for, or, if approved, successfully commercialize CPI-444, we may not be able to generate sufficient revenue to continue our business.

***Clinical drug development involves a lengthy and expensive process with an uncertain outcome, and the results of preclinical studies and early clinical trials are not necessarily predictive of future results. Any product candidate we or any of our potential future collaborators advance into clinical trials, including CPI-444, may not have favorable results in later clinical trials, if any, or receive regulatory approval.***

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials.

Furthermore, our future trials will need to demonstrate sufficient safety and efficacy for approval by regulatory authorities in larger patient populations. Prior to licensing our lead product candidate, CPI-444, it exhibited encouraging safety data in clinical studies performed by third parties. However, CPI-444 has only been studied in healthy volunteers and patients with attention deficit and hyperactivity disorder (ADHD), and has not yet been administered to cancer patients, nor has its immunological effect been studied in humans. It is possible that patients enrolled in our Phase 1/1b clinical trial for CPI-444, which we initiated in January 2016, could respond in unexpected ways. For instance, older patients with cancer may behave differently and experience more toxicity with CPI-444 than the subjects in the prior clinical studies. In addition, we expect that the dosing regimen and duration of treatment in any clinical trial will vary from those utilized in the studies previously

performed by third parties. Furthermore, a portion of our Phase 1/1b clinical trial includes the administration of CPI-444 in combination with Genentech's investigational cancer immunotherapy, atezolizumab (MPDL3280A), which could exacerbate immune system related adverse events, cause increased toxicity or otherwise lead to unexpected adverse events. As a result, there can be no assurance that the results of clinical studies of CPI-444 conducted by third parties will be indicative of results of our Phase 1/1b clinical trial.

For the foregoing reasons, we cannot be certain that our planned clinical trial or any other future clinical trials will be successful. Any safety concerns observed in any one of our clinical trials in our targeted indications could limit the prospects for regulatory approval of our product candidates in those and other indications, which could have a material adverse effect on our business, financial condition and results of operations.

***Any termination or suspension of, or delays in the commencement or completion of, our planned clinical trials could result in increased costs to us, delay or limit our ability to generate revenue and adversely affect our commercial prospects.***

Before we can initiate clinical trials in the United States for our product candidates, we must submit the results of preclinical testing to the FDA along with other information, including information about product candidate chemistry, manufacturing and controls and our proposed clinical trial protocol, as part of an investigational new drug (IND) application. Our IND for CPI-444 is dependent on preclinical and clinical testing performed by our licensor and its corporate partner and a prior IND filed by our licensor for a non-oncology indication. We were not directly involved in the design or performance of these studies, and, therefore, we may be unable to review or verify all aspects of the information. In addition, we may rely in part on preclinical, clinical and quality data generated by clinical research organizations (CROs) and other third parties for regulatory submissions for our product candidates. If these third parties do not make timely regulatory submissions for our product candidates, it will delay our plans for our clinical trials. If those third parties do not make this data available to us, we will likely have to develop all necessary preclinical and clinical data on our own, which will lead to significant delays and increase development costs of the product candidate. In addition, the FDA may require us to conduct additional preclinical testing for any product candidate before it allows us to initiate clinical testing under any IND, which may lead to additional delays and increase the costs of our preclinical development. Delays in the commencement or completion of our planned clinical trials for CPI-444 or other product candidates could significantly affect our product development costs.

We do not know whether our planned trials will begin on time or be completed on schedule, if at all. The commencement and completion of clinical trials can be delayed for a number of reasons, including delays related to:

- the FDA failing to grant permission to proceed or placing the clinical trial on hold;
- subjects failing to enroll or remain in our trial at the rate we expect;
- subjects choosing an alternative treatment for the indication for which we are developing CPI-444 or other product candidates, or participating in competing clinical trials;
- lack of adequate funding to continue the clinical trial;
- subjects experiencing severe or unexpected drug-related adverse effects;
- a facility manufacturing CPI-444, any of our other product candidates or any of their components being ordered by the FDA or other regulatory authorities to temporarily or permanently shut down due to violations of good manufacturing practice (cGMP) regulations or other applicable requirements, or infections or cross-contaminations of product candidates in the manufacturing process;
- any changes to our manufacturing process that may be necessary or desired;

- any failure or delay in reaching an agreement with CROs and clinical trial sites;
- third-party clinical investigators losing the licenses or permits necessary to perform our clinical trials, not performing our clinical trials on our anticipated schedule or consistent with the clinical trial protocol, good clinical practices (GCP) or regulatory requirements or other third parties not performing data collection or analysis in a timely or accurate manner;
- third-party contractors becoming debarred or suspended or otherwise penalized by the FDA or other government or regulatory authorities for violations of regulatory requirements, in which case we may need to find a substitute contractor, and we may not be able to use some or all of the data produced by such contractors in support of our marketing applications;
- one or more Institutional Review Boards (IRBs) refusing to approve, suspending or terminating the trial at an investigational site, precluding enrollment of additional subjects, or withdrawing its approval of the trial; or
- patients failing to complete a trial or return for post-treatment follow-up.

We could also encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted, by the Data Safety Monitoring Board for such trial or by the FDA or other regulatory authorities. Such authorities may impose such a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. In addition, changes in regulatory requirements and policies may occur, and we may need to amend clinical trial protocols to comply with these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for reexamination, which may impact the costs, timing or successful completion of a clinical trial.

If we experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenues. See also the risk factor below titled "If we encounter difficulties enrolling subjects in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected."

In addition, many of the factors that cause, or lead to, termination or suspension of, or a delay in the commencement or completion of, clinical trials may also ultimately lead to the denial of regulatory approval of a product candidate. For example, if we make manufacturing or formulation changes to our product candidates, we may need to conduct additional studies to bridge our modified product candidates to earlier versions. Further, if one or more clinical trials are delayed, our competitors may be able to bring products to market before we do, and the commercial viability of CPI-444 or other product candidates could be significantly reduced. Any of these occurrences may harm our business, financial condition and prospects significantly.

***CPI-444 and our other product candidates are subject to extensive regulation, compliance with which is costly and time consuming, and such regulation may cause unanticipated delays or prevent the receipt of the required approvals to commercialize our product candidates.***

The clinical development, manufacturing, labeling, storage, record-keeping, advertising, promotion, import, export, marketing and distribution of our product candidates are subject to extensive regulation by the FDA in the United States and by comparable authorities in foreign markets. In the United States, we are not permitted to market our product candidates until we receive regulatory approval from the FDA. The process of obtaining regulatory approval is expensive, often takes many years and

can vary substantially based upon the type, complexity and novelty of the product candidates involved, as well as the target indications and patient population. Approval policies or regulations may change, and the FDA has substantial discretion in the drug approval process, including the ability to delay, limit or deny approval of a product candidate for many reasons. Despite the time and expense invested in clinical development of product candidates, regulatory approval is never guaranteed.

The FDA or comparable foreign regulatory authorities can delay, limit or deny approval of a product candidate for many reasons, including:

- such authorities may disagree with the design or implementation of our or any of our potential future collaborators' clinical trials;
- we or any of our potential future collaborators may be unable to demonstrate to the satisfaction of the FDA or other regulatory authorities that a product candidate is safe and effective for any indication;
- such authorities may not accept clinical data from trials which are conducted at clinical facilities or in countries where the standard of care is potentially different from that of the United States;
- we or any of our potential future collaborators may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- such authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- approval may be granted only for indications that are significantly more limited than what we apply for and/or with other significant restrictions on distribution and use;
- such authorities may find deficiencies in the manufacturing processes or facilities of third-party manufacturers with which we or any of our potential future collaborators contract for clinical and commercial supplies; or
- the approval policies or regulations of such authorities may significantly change in a manner rendering our or any of our potential future collaborators' clinical data insufficient for approval.

With respect to foreign markets, approval procedures vary among countries and, in addition to the foregoing risks, may involve additional product testing, administrative review periods and agreements with pricing authorities. In addition, events raising questions about the safety of certain marketed pharmaceuticals may result in increased cautiousness by the FDA and comparable foreign regulatory authorities in reviewing new drugs based on safety, efficacy or other regulatory considerations and may result in significant delays in obtaining regulatory approvals. Any delay in obtaining, or inability to obtain, applicable regulatory approvals would prevent us or any of our potential future collaborators from commercializing our product candidates.

***If we encounter difficulties enrolling subjects in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.***

Subject enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, the risk that enrolled patients will not complete a clinical trial, our ability to recruit clinical trial investigators with the appropriate competencies and experience, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating. We will be required to identify and enroll a sufficient number of subjects for each of our clinical trials. Potential subjects for any planned clinical trials may not be adequately diagnosed or identified with the diseases which we are targeting or may not meet the entry criteria for our studies. We also may encounter difficulties in identifying and enrolling subjects with a stage of disease appropriate for our planned clinical trials. We may not be able to initiate or continue clinical trials if we are unable to locate a

sufficient number of eligible subjects to participate in the clinical trials required by the FDA or other foreign regulatory agencies. In addition, the process of finding and diagnosing subjects may prove costly.

In January 2016, we initiated a Phase 1/1b clinical trial for CPI-444 in which we administer CPI-444 as a single agent and in combination with atezolizumab. In this ongoing trial, we plan to enroll patients with many different types of cancer, and it may be difficult to enroll such a diverse group of patients. In addition, we expect there will be ten different treatment cohorts in the clinical trial and it may not be possible to fully enroll all the cohorts or any expansions thereof. Furthermore, if patients are unwilling to participate in our studies for any reason, including the existence of competitive clinical trials for similar patient populations or the availability of approved therapies, the timeline for recruiting subjects, conducting studies and obtaining regulatory approval of our product candidates may be delayed. Our inability to enroll a sufficient number of subjects for any of our future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether.

We believe we have appropriately accounted for the above factors in our trials when determining expected clinical trial timelines, but we cannot assure you that our assumptions are correct or that we will not experience delays in enrollment, which would result in the delay of completion of such trials beyond our expected timelines.

***The occurrence of serious complications or side effects in connection with use of our product candidates, either in clinical trials or post-approval, could lead to discontinuation of our clinical development programs, refusal of regulatory authorities to approve our product candidates or, post-approval, revocation of marketing authorizations or refusal to approve new indications, which could severely harm our business, prospects, operating results and financial condition.***

During the conduct of clinical trials, patients report changes in their health, including illnesses, injuries and discomforts, to their study doctor. Often, it is not possible to determine whether or not the product candidate being studied caused these conditions. For example, in clinical studies of CPI-444 performed by third parties prior to our licensing it from Vernalis, patients exhibited mild transient hypertension as well as minor gastrointestinal disorders due to gastric irritation.

Further, we expect that the dosing regimen and duration of treatment in any clinical trial will vary from those utilized in the studies previously performed by third parties. It is possible that as we test our product candidates in larger, longer and more extensive clinical programs with different dosing regimens, or as use of these product candidates becomes more widespread if they receive regulatory approval, illnesses, injuries, discomforts and other adverse events that were observed in earlier trials, as well as conditions that did not occur or went undetected in previous trials, will be reported by subjects. For example, although no cardiac adverse events have been observed in the clinical trials for CPI-444 to date, CPI-444 is known to bind to the A1 adenosine receptor. This receptor is expressed in the heart, and although CPI-444 binds to the A1 receptor at a low affinity, it is possible that sufficient binding of the drug to the A1 receptor could occur, leading to adverse effects on the heart such as irregular heart rate or rapid heart rate.

Many times side effects are only detectable after investigational products are tested in large-scale, Phase 3 clinical trials or, in some cases, after they are made available to patients on a commercial scale after approval. To date, CPI-444 has only been studied in healthy volunteers and patients with ADHD, and it is possible that older patients with cancer may behave differently and experience more toxicity with CPI-444. Although not seen to date with CPI-444, other immune-oncology drugs have been found occasionally to induce immune related toxicities such as colitis, hepatitis, pneumonitis and various endocrine diseases. Such side effects could also be exacerbated when CPI-444 is administered in combination with atezolizumab. Results of our trials could reveal a high and unacceptable severity and prevalence of these or other side effects. In such an event, our trials could be suspended or terminated, and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates for any or all targeted indications. Drug-related side

effects could affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly.

In addition, if one or more of our product candidates receives marketing approval, and we or others later identify undesirable side effects caused by such products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of such product;
- regulatory authorities may require additional warnings on the label;
- we may be required to create a medication guide outlining the risks of such side effects for distribution to patients;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, results of operations and prospects.

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

The success of our business depends primarily upon our ability to develop and commercialize CPI-444. Although CPI-444 is currently in clinical development, our research programs may fail to identify other potential product candidates or advance them into clinical development for a number of reasons. Our research methodology may be unsuccessful in identifying other potential product candidates or our other potential product candidates may be shown to have harmful side effects or may have other characteristics that may make the products unmarketable or unlikely to receive marketing approval. It may also take greater human and financial resources to identify additional therapeutic opportunities for our product candidates or to develop suitable potential product candidates through our research programs than we will possess, thereby limiting our ability to diversify and expand our product candidate portfolio.

***In the future, we may conduct clinical trials for CPI-444 and other product candidates in sites outside the United States, and the FDA may not accept data from trials conducted in foreign locations.***

We may in the future choose to conduct one or more of our clinical trials outside the United States. Although the FDA may accept data from clinical trials conducted outside the United States, acceptance of this data is subject to certain conditions imposed by the FDA. For example, the clinical trial must be well designed and conducted and performed by qualified investigators in accordance with ethical principles. The study population must also adequately represent the U.S. population, and the data must be applicable to the U.S. population and U.S. medical practice in ways that the FDA deems clinically meaningful. In general, the patient population for any clinical studies conducted outside of the United States must be representative of the population for whom we intend to label the product in the United States. In addition, while these clinical trials are subject to the applicable local laws, FDA acceptance of the data will be dependent upon its determination that the studies also complied with all applicable U.S. laws and regulations. There can be no assurance the FDA will accept data from trials conducted outside of the United States. If the FDA does not accept the data from our clinical trials for CPI-444 or any other product candidates, it would likely result in the need for additional trials, which would be costly and time-consuming and delay or permanently halt our development of CPI-444 or any other product candidates.

**Risks Related to Our Reliance on Third Parties**

***We expect to rely on third parties to conduct our clinical trials. If these third parties do not meet our deadlines or otherwise conduct the trials as required, our clinical development programs could be delayed or unsuccessful and we may not be able to obtain regulatory approval for or commercialize our product candidates when expected, or at all.***

We do not have the ability to conduct all aspects of our preclinical testing or clinical trials ourselves. As a result, we expect to be dependent on third parties to conduct our Phase 1/1b clinical trial for CPI-444 and any future clinical studies of CPI-444 and preclinical and clinical trials for our other and future product candidates. The timing of the initiation and completion of these trials will therefore be controlled by such third parties and may occur at times substantially different from our estimates. Specifically, we intend to use and rely on medical institutions, clinical investigators, CROs and consultants to conduct our trials in accordance with our clinical protocols and regulatory requirements. We expect such CROs, investigators and other third parties to play a significant role in the conduct of these trials and subsequent collection and analysis of data, and we will control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on the CROs and other third parties does not relieve us of our regulatory responsibilities. We and our CROs are required to comply with GCP requirements, which are regulations and guidelines enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area (EEA) and comparable foreign regulatory authorities for all of our product candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs or trial sites fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable, and the FDA, EMA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. In addition, our clinical trials must be conducted with product produced under cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

There is no guarantee that any such CROs, investigators or other third parties will devote adequate time and resources to such trials or perform as contractually required. If any of these third parties fail to meet expected deadlines, adhere to our clinical protocols or meet regulatory requirements, or otherwise performs in a substandard manner, our clinical trials may be extended, delayed or terminated.

If any of our clinical trial sites terminates for any reason, we may experience the loss of follow-up information on subjects enrolled in such clinical trials unless we are able to transfer those subjects to another qualified clinical trial site, which may be difficult or impossible.

In addition, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected the interpretation of the study, the integrity of the data generated at the applicable clinical trial site may be questioned and the utility of the clinical trial itself may be jeopardized, which could result in the delay or rejection of any NDA or BLA we submit by the FDA. Any such delay or rejection could prevent us from commercializing CPI-444 or our other future product candidates.

***We rely on third parties to conduct some or all aspects of our manufacturing, research and preclinical and clinical testing, and these third parties may not perform satisfactorily.***

We do not expect to independently conduct all aspects of our manufacturing, research and preclinical and clinical testing. We currently rely, and expect to continue to rely, on third parties with respect to these items. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our studies in accordance with regulatory requirements or our stated study plans and protocols, we may not be able to complete, or may be delayed in completing, the preclinical and clinical studies required to support future IND submissions and approval of our product candidates. Furthermore, any of these third parties may terminate its engagement with us at any time. If we need to enter into alternative arrangements, it could delay our product development activities, and we may not be able to negotiate alternative arrangements on commercially reasonable terms, or at all.

***We and our contract manufacturers are subject to significant regulation with respect to manufacturing our products and the contract manufacturers on which we rely may not continue to meet regulatory requirements.***

We do not currently have nor do we plan to acquire the infrastructure or internal capability to manufacture our clinical drug supplies for use in the conduct of our trials, and we lack the resources and the capability to manufacture any of our product candidates on a clinical or commercial scale. We currently rely on several different manufacturers who supply different parts of the CPI-444 molecule and are in discussions with third-party manufacturers for our anti-CD73 antibody. These suppliers currently do not have the capacity for commercial scale manufacturing.

All entities involved in the preparation of therapeutics for clinical studies or commercial sale, including our existing contract manufacturers for our product candidates, are subject to extensive regulation. Components of a finished therapeutic product approved for commercial sale or used in late-stage clinical studies must be manufactured in accordance with cGMP requirements. These regulations govern manufacturing processes and procedures, including record keeping, and the implementation and operation of quality systems to control and assure the quality of investigational products and products approved for sale. Poor control of production processes can lead to the introduction of adventitious agents or other contaminants, or to inadvertent changes in the properties or stability of our product candidates that may not be detectable in final product testing. We or our contract manufacturers must supply all necessary documentation in support of an NDA or BLA on a timely basis and must adhere to the FDA's Good Laboratory Practice regulations and cGMP regulations enforced by the FDA through its facilities inspection program. Our facilities and quality systems and the facilities and quality systems of some or all of our third-party contractors must pass a pre-approval inspection for compliance with the applicable regulations as a condition of regulatory approval of our product candidates or any of our other potential products. In addition, the regulatory authorities may, at any time, audit or inspect our manufacturing facilities or those of our third-party contractors involved with the preparation of our product candidates or the associated quality systems for compliance with the regulations applicable to the activities being conducted. We do not control the manufacturing process of, and are completely dependent on, our contract manufacturing partners for compliance with cGMPs.

The regulatory authorities also may, at any time following approval of a product for sale, audit the manufacturing facilities of our third-party contractors. If any such inspection or audit identifies a failure to comply with applicable regulations or if a violation of our product specifications or applicable regulations occurs independent of such an inspection or audit, we or the relevant regulatory authority may require remedial measures that may be costly and/or time-consuming for us or a third party to implement and that may include the temporary or permanent suspension of a clinical study or commercial sales or the temporary or permanent closure of a facility. Such violations could also result in civil and/or criminal penalties, and the FDA may impose regulatory sanctions including, among other

things, refusal to approve a pending application for a new drug product or biologic product, revocation of a pre-existing approval or closing one or more manufacturing facilities.

In addition, if supply from an approved manufacturer is interrupted, there could be a significant disruption in commercial supply. An alternative manufacturer would need to be qualified through an NDA supplement which could result in further delay. The regulatory agencies may also require additional studies if a new manufacturer is relied upon for commercial production. Changing manufacturers may involve substantial costs and is likely to result in a delay in our desired clinical and commercial timelines.

***We, or our third-party manufacturers, may be unable to successfully scale-up manufacturing of our product candidates in sufficient quality and quantity, which would delay or prevent us from developing our product candidates and commercializing approved products, if any.***

In order to conduct clinical trials of our product candidates, we will need to manufacture them in large quantities. We, or any manufacturing partners, may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If we or any manufacturing partners are unable to successfully scale up the manufacture of our product candidates in sufficient quality and quantity, the development, testing and clinical trials of that product candidate may be delayed or become infeasible, and regulatory approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business.

***Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.***

Because we rely on third parties to research and develop and to manufacture our product candidates, we must share trade secrets with them. We seek to protect our proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, consulting agreements or other similar agreements with our advisors, employees, third-party contractors and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information, including our trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. Given that our proprietary position is based, in part, on our know-how and trade secrets, a competitor's independent discovery of our trade secrets or other unauthorized use or disclosure would impair our competitive position and may have a material adverse effect on our business.

In addition, these agreements typically restrict the ability of our advisors, employees, third-party contractors and consultants to publish data potentially relating to our trade secrets, although our agreements may contain certain limited publication rights. For example, any academic institution that we may collaborate with in the future will likely expect to be granted rights to publish data arising out of such collaboration. In the future we may also conduct joint research and development programs that may require us to share trade secrets under the terms of our research and development or similar agreements. Despite our efforts to protect our trade secrets, our competitors may discover our trade secrets, either through breach of our agreements with third parties, independent development or publication of information by any of our third-party collaborators. A competitor's discovery of our trade secrets would impair our competitive position and have an adverse impact on our business.

**Risks Related to Commercialization of Our Product Candidates**

***All of our product candidates are still in preclinical or early-stage clinical development. If we are unable to commercialize our product candidates or if we experience significant delays in obtaining regulatory approval for, or commercializing, any or all of our product candidates, our business will be materially and adversely affected.***

All of our product candidates are still in preclinical and early-stage clinical development. In particular, none of our product candidates, other than CPI-444, has ever been tested in a human subject. Our ability to generate product revenue will depend heavily on our ability to successfully develop and commercialize these product candidates. We do not expect that such commercialization of any of our product candidates will occur for at least the next several years, if ever. Our ability to commercialize our product candidates effectively will depend on several factors, including the following:

- successful completion of preclinical studies and clinical trials, including the ability to demonstrate safety and efficacy of our product candidates;
- managing the complexity of our clinical trial designs;
- receipt of marketing approvals from the FDA and similar foreign regulatory authorities;
- establishing commercial manufacturing capabilities by making arrangements with third-party manufacturers;
- successfully launching commercial sales of any approved products, whether alone or in collaboration with others;
- acceptance of any approved products by patients, the medical community and third-party payors;
- establishing market share while competing with other therapies;
- a continued acceptable safety profile of any approved products;
- maintaining compliance with post-approval regulation and other requirements; and
- qualifying for, identifying, registering, maintaining, enforcing and defending intellectual property rights and claims covering our product candidates.

If we experience significant delays or an inability to commercialize our product candidates, our business, financial condition and results of operations will be materially adversely affected.

***If we do not achieve our projected development goals in the time frames we announce and expect, the commercialization of our products may be delayed and, as a result, our stock price may decline.***

We estimate the timing of the accomplishment of various scientific, clinical, regulatory and other product development goals, which we sometimes refer to as milestones. These milestones may include the commencement or completion of scientific studies and clinical trials and the submission of regulatory filings. From time to time, we may publicly announce the expected timing of some of these milestones. For example, throughout this prospectus, we state that we plan to complete IND-enabling studies for the development of our humanized monoclonal anti-CD73 antibody in 2017. All of these milestones will be based on a variety of assumptions, and the actual timing of these milestones can vary dramatically compared to our estimates, in some cases for reasons beyond our control. If we do not meet these milestones as publicly announced, the commercialization of our products may be delayed and, as a result, our stock price may decline.

***Any approved products 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 product candidates, when and if any of them are approved.***

Following potential approval of any our product candidates, the FDA may impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly and time consuming post-approval studies, post-market surveillance or clinical trials. Following approval, if any, of CPI-444 or any other product candidate, such candidate will also be subject to ongoing FDA requirements governing the labeling, packaging, storage, distribution, safety surveillance, advertising, promotion, recordkeeping and reporting of safety and other post-market information. If we or a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product, the manufacturing facility or us, including requesting recall or withdrawal of the product from the market or suspension of manufacturing.

If we or the manufacturing facilities for CPI-444 or any other product candidate that may receive regulatory approval, if any, fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters or untitled letters;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve pending applications or supplements or applications filed by us;
- suspend or impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products, refuse to permit the import or export of product or request that we initiate a product recall.

The occurrence of any event or penalty described above may inhibit our ability to commercialize our product candidates and generate revenue.

The FDA has the authority to require a risk evaluation and mitigation strategy (REMS) as part of an NDA or after approval, which may impose further requirements or restrictions on the distribution or use of an approved drug, such as limiting prescribing to certain physicians or medical centers that have undergone specialized training, limiting treatment to patients who meet certain safe-use criteria and requiring treated patients to enroll in a registry.

In addition, if CPI-444 or any of our other product candidates is approved, our product labeling, advertising and promotion will be subject to regulatory requirements and continuing regulatory review. The FDA strictly regulates the promotional claims that may be made about prescription products. In particular, a product may not be promoted for uses that are not approved by the FDA as reflected in the product's approved labeling. If we receive marketing approval for a product candidate, physicians may nevertheless prescribe it to their patients in a manner that is inconsistent with the approved label. If we are found to have promoted such off-label uses, we may become subject to significant liability. 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 sanctions. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in off-label promotion. The FDA has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

***Even if we receive regulatory approval we still may not be able to successfully commercialize CPI-444 or any other product candidate, and the revenue that we generate from sales, if any, could be limited.***

Even if CPI-444 or any of our other product candidates receive regulatory approval, they may not gain market acceptance among physicians, patients, healthcare payors or the medical community. The degree of market acceptance of our product candidates will depend on a number of factors, including:

- demonstration of clinical efficacy and safety compared to other more-established products;
- the indications for which our product candidates are approved;
- the limitation of our targeted patient population and other limitations or warnings contained in any FDA-approved labeling;
- acceptance of a new formulation by healthcare providers and their patients;
- our ability to obtain and maintain sufficient third-party coverage and reimbursement from government healthcare programs, including Medicare and Medicaid, private health insurers and other third-party payors;
- the willingness of patients to pay out-of-pocket in the absence of third-party coverage and reimbursement;
- the prevalence and severity of any adverse effects;
- pricing and cost-effectiveness;
- the timing of market introduction of our product candidates as well as competitive drugs;
- the effectiveness of our or any of our potential future collaborators' sales and marketing strategies; and
- unfavorable publicity relating to the product candidate.

If any product candidate is approved but does not achieve an adequate level of acceptance by physicians, hospitals, healthcare payors or patients, we may not generate sufficient revenue from that product candidate and may not become or remain profitable. Our efforts to educate the medical community and third-party payors regarding the benefits of CPI-444 or any of our other product candidates may require significant resources and may never be successful.

***Failure to obtain or maintain adequate coverage and reimbursement for our product candidates, if approved, could limit our ability to market those products and decrease our ability to generate revenue.***

Successful commercial sales of any approved products will depend on the availability of adequate coverage and reimbursement from government health administration authorities, private health insurers and other third-party payors. Each third-party payor separately decides which products it will cover and establishes the reimbursement level, and there is no guarantee that any of our product candidates that may be approved for marketing by regulatory authorities will receive adequate coverage or reimbursement levels. Obtaining and maintaining coverage approval for a product candidate is time-consuming, costly and may be difficult. We may be required to conduct expensive pharmacoeconomic studies to justify coverage and reimbursement or the level of coverage and reimbursement relative to other therapies. If coverage and adequate reimbursement are not available or limited, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval. 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 drugs and biologics. Even if we obtain coverage for a given product, the resulting reimbursement rates may be inadequate and may affect the demand for, or the price of, any product candidate for which we obtain marketing approval.

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

In the United States and some foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes regarding the healthcare system, including cost-containment measures that may reduce or limit coverage and reimbursement for newly approved drugs and biologics and affect our ability to profitably sell any product candidates for which we obtain marketing approval.

For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively referred to as the Affordable Care Act, was enacted with a goal of reducing the cost of healthcare and substantially changing the way healthcare is financed by both governmental and private insurers. The Affordable Care Act, among other things, subjected biological products to potential competition by lower-cost biosimilars; addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected; increased the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program; extended the rebate program to individuals enrolled in Medicaid managed care organizations; established annual fees and taxes on manufacturers of certain prescription drugs; created a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D; and established a new Patient-Centered Outcomes Research Institute to oversee, identify priorities and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. These new laws, among other things, included aggregate reductions of Medicare payments to providers of up to 2% per fiscal year that will remain in effect through 2025 unless additional Congressional action is taken and additional specific reductions in Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers.

We expect that the Affordable Care Act, these new laws and other healthcare reform measures that may be adopted in the future may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our product candidates, if approved.

***Any product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.***

The Affordable Care Act includes a subtitle called the Biologics Price Competition and Innovation Act of 2009 (BPCIA), which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until twelve years from the date on which the reference product was first licensed. During this twelve-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of its product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact,

implementation and meaning are subject to uncertainty. While the processes to implement the BPCIA have not yet been fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biological products.

Though CPI-444 is a small molecule and will not be regulated as a biological product, we intend to develop biological products in the future. We believe that any of our future product candidates approved as a biological product under a BLA should qualify for the twelve-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to Congressional action or otherwise, or that the FDA will not consider our product candidates to be reference products for competing products, potentially creating the opportunity for generic competition sooner than anticipated. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. Moreover, the extent to which a biosimilar, once approved, could be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products will depend on a number of marketplace and regulatory factors that are still developing.

***We may fail to obtain orphan drug designations from the FDA for our product candidates, and even if we obtain such designations, we may be unable to maintain the benefits associated with orphan drug designation, including the potential for market exclusivity.***

Under the Orphan Drug Act, the FDA may grant orphan drug designation to a drug or biologic intended to treat a rare disease or condition, which is defined as one occurring in a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug or biologic will be recovered from sales in the United States. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. In addition, if a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan drug exclusivity, which means that the FDA may not approve any other applications, including a full NDA or BLA, to market the same drug or biologic for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity or where the manufacturer is unable to assure sufficient product quantity.

While we have not obtained nor have we sought to obtain orphan designation for any product candidate, we believe many of the potential indications of our product candidates, if approved, could qualify for orphan drug designation. For instance, if CPI-444 is approved for the treatment of certain solid tumors with small patient populations, such as melanoma, renal or triple-negative breast cancer, it is possible that it could qualify for orphan drug designation with respect to such indications. As a result, we may seek to obtain orphan drug designation for our product candidates for any qualifying indications they may be approved for in the future. Even if we obtain such designations, we may not be the first to obtain marketing approval of our product candidate for the orphan-designated indication due to the uncertainties associated with developing pharmaceutical products. In addition, exclusive marketing rights in the United States may be limited if we seek approval for an indication broader than the orphan-designated indication or may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition. Further, even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs with different active moieties can be approved for the same condition. Even after an orphan product is approved, the FDA can subsequently approve the same drug with the same active moiety for the same condition if the FDA concludes that the later drug is safer, more effective or makes a major contribution to patient care. Orphan drug designation neither shortens the development time or regulatory review time of a drug, nor gives the drug any advantage in the regulatory review or approval process. In addition, while we may seek orphan drug designation for our product candidates, we may never receive such designations.

***We may expend our limited resources to pursue a particular product candidate and fail to capitalize on product candidates 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 specific product candidates, including CPI-444. As a result, we may forgo or delay pursuit of opportunities with other product candidates 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 product candidates. 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.

***We may not be successful in establishing and maintaining development or other strategic collaborations, which could adversely affect our ability to develop and commercialize product candidates.***

In connection with our Phase 1/1b clinical trial for CPI-444, we entered into a clinical trial collaboration agreement with Genentech in October 2015. Pursuant to the agreement, Genentech will provide us with access to, and supplies of, its investigational cancer immunotherapy, atezolizumab (MPDL3280A), to be used in combination with CPI-444 in the clinical trial. The collaboration operates under a joint development committee with equal representation from both companies. However, we and Genentech each have the right to terminate the agreement due to material breach by either party for safety considerations, if directed by a regulatory authority or if development of CPI-444 or atezolizumab is discontinued. If we fail to maintain our strategic collaboration with Genentech (1) the development of CPI-444 in combination with atezolizumab may be terminated or delayed; (2) our cash expenditures related to development of CPI-444 could increase significantly, and we may need to seek additional financing; (3) we may be required to hire additional employees or otherwise develop expertise for which we have not budgeted; (4) we will bear all of the risk related to the development of CPI-444 as a combination therapy; and (5) we will need to seek collaborations with other companies that have anti-PD-1 or anti-PDL-1 antibodies, which will significantly delay our development program.

***We may form strategic alliances and collaborative partnerships in the future, and we may not realize the benefits of such alliances.***

In addition to our collaboration agreement with Genentech, we may form additional strategic alliances, create joint ventures or collaborations or enter into licensing arrangements with third parties that we believe will complement or augment our existing business, including for the continued development or commercialization of our product candidates. These relationships may result in or include non-recurring and other charges, increased near- and long-term expenditures, the issuance of securities that dilute our existing stockholders or disruptions to our management and business. In addition, we face significant competition in seeking appropriate strategic partners, and the negotiation process is time-consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for our product candidates because third parties may view the risk of failure in future clinical trials as too significant or the commercial opportunity for our product candidates as too limited. We cannot be certain that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction.

Even if we are successful in our efforts to establish strategic alliances or collaborative partnerships, the terms that we agree upon may not be favorable to us, and we may not be able to maintain such strategic alliances or collaborative partnerships if, for example, development or approval of a product candidate is delayed, the safety of a product candidate is questioned or sales of an approved product candidate are unsatisfactory. In addition, any potential future strategic alliances or collaborative

partnerships may be terminable by our strategic partners, and we may not be able to adequately protect our rights under these agreements. Furthermore, strategic partners may negotiate for certain rights to control decisions regarding the development and commercialization of our product candidates, if approved, and may not conduct those activities in the same manner as we do. Any termination of strategic alliances or collaborative partnerships we enter into in the future, or any delay in entering into collaborative partnership agreements related to our product candidates, could delay the development and commercialization of our product candidates and reduce their competitiveness if they reach the market, which could have a material adverse effect on our business, financial condition and results of operations.

***We face competition from entities that have developed or may develop product candidates for cancer, including companies developing novel treatments and technology platforms. If these companies develop technologies or product candidates more rapidly than we do or their technologies are more effective, our ability to develop and successfully commercialize product candidates may be adversely affected.***

Our competitors have developed, are developing or will develop product candidates and processes competitive with our product candidates. Competitive therapeutic treatments include those that have already been approved and accepted by the medical community and any new treatments that enter the market. We believe that a significant number of products are currently under development, and may become commercially available in the future, for the treatment of conditions for which we may attempt to develop product candidates. In particular, there is intense and rapidly evolving competition in the immunoregulatory therapeutics field. Our competitors include larger and better funded pharmaceutical, biopharmaceutical, biotechnological and therapeutics companies. Moreover, we also compete with universities and other research institutions who may be active in oncology research and could be in direct competition with us. We also compete with these organizations to recruit management, scientists and clinical development personnel, which could negatively affect our level of expertise and our ability to execute our business plan. We will also face competition in establishing clinical trial sites, registering subjects for clinical trials and in identifying and in-licensing new product candidates. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

All of our product candidates, if approved, will compete with a range of therapeutic treatments that are either in development or currently marketed. We are aware of companies that have advanced adenosine A2A receptor antagonists into early- or late-stage clinical development for non-oncology indications, primarily Parkinson's disease. These companies include Merck & Co., Inc. and Biotie Therapies Corp. In addition, Kyowa Hakko Kirin Pharma, Inc. has approval in Japan for an adenosine A2A receptor antagonist for use in Parkinson's disease and is currently conducting a Phase 3 study in the United States for Parkinson's disease. Within oncology, Palobiofarma SL has submitted an IND to begin a Phase 1 dose finding clinical trial with an adenosine A2A antagonist in lung cancer patients. Novartis has announced an exclusive licensing agreement with Palobiofarma. AstraZeneca plc has recently licensed a preclinical A2A antagonist for use in cancer therapy. In addition, Redoxtherapies, Inc. is developing an A2A receptor antagonist for cancer. More generally, in the field of immuno-oncology, there are large pharmaceutical companies with approved products or products in late-stage development that target other immune checkpoints, including PD-1, PDL-1 or CTLA-4. These companies include Bristol-Myers Squibb (nivolumab, ipilimumab), Merck (pembrolizumab), Genentech (atezolizumab) and AstraZeneca (tremelimumab). Also, AstraZeneca and MedImmune LLC have recently announced the initiation of a Phase 1 study with an anti-CD73 antibody. Finally, Janssen Pharmaceuticals, Inc. and AbbVie Inc. are co-marketing Imbruvica (ibrutinib), which is a small molecule inhibitor of the kinase BTK that has also been reported to inhibit ITK.

Many of our competitors have significantly greater financial, technical, manufacturing, marketing, sales and supply resources or experience than we do. If we successfully obtain approval for any product candidate, we will face competition based on many different factors, including the safety and effectiveness of our products, the ease with which our products can be administered and the extent to which patients accept relatively new routes of administration, the timing and scope of regulatory approvals for these products, the availability and cost of manufacturing, marketing and sales capabilities, price, reimbursement coverage and patent position. Competing products could present superior treatment alternatives, including by being more effective, safer, less expensive or marketed and sold more effectively than any products we may develop. Competitive products may make any products we develop obsolete or noncompetitive before we recover the expense of developing and commercializing our product candidates.

***The market opportunities for our product candidates may be limited to those patients who are ineligible for or have failed prior treatments and may be small.***

Cancer therapies are sometimes characterized as first line, second line or third line, and the FDA often approves new therapies initially only for third line use. When cancer is detected early enough, first line therapy is sometimes adequate to cure the cancer or prolong life without a cure. Whenever first line therapy, usually chemotherapy, hormone therapy, surgery or a combination of these, proves unsuccessful, second line therapy may be administered. Second line therapies often consist of more chemotherapy, radiation, antibody drugs, tumor targeted small molecules or a combination of these. Third line therapies can include bone marrow transplantation, antibody and small molecule targeted therapies, more invasive forms of surgery and new technologies. In markets with approved therapies, we expect to initially seek approval of our product candidates as a later stage therapy for patients who have failed other approved treatments. Subsequently, for those drugs that prove to be sufficiently beneficial, if any, we would expect to seek approval as a second line therapy and potentially as a first line therapy, but there is no guarantee that our product candidates, even if approved, would be approved for second line or first line therapy. In addition, we may have to conduct additional clinical trials prior to gaining approval for second line or first line therapy.

Our projections of both the number of people who have the cancers we are targeting, as well as the subset of people with these cancers in a position to receive later stage therapy and who have the potential to benefit from treatment with our product candidates, are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including scientific literature, surveys of clinics, patient foundations or market research and may prove to be incorrect. Further, new studies may change the estimated incidence or prevalence of these cancers. The number of patients may turn out to be lower than expected. In addition, the potentially addressable patient population for our product candidates may be limited or may not be amenable to treatment with our product candidates. Even if we obtain significant market share for our product candidates, we may never achieve profitability without obtaining regulatory approval for additional indications, including use as a first or second line therapy.

***We have no sales, marketing or distribution capabilities, and we may have to invest significant resources to develop these capabilities.***

We have no internal sales, marketing or distribution capabilities. If CPI-444 or any of our other product candidates ultimately receives regulatory approval, we may not be able to effectively market and distribute the product candidate. We may have to seek collaborators or invest significant amounts of financial and management resources to develop internal sales, distribution and marketing capabilities, some of which will be committed prior to any confirmation that CPI-444 or any of our other product candidates will be approved, if at all. We may not be able to enter into collaborations or hire consultants or external service providers to assist us in sales, marketing and distribution functions

on acceptable financial terms or at all. Even if we determine to perform sales, marketing and distribution functions ourselves, we could face a number of additional related risks, including:

- we may not be able to attract and build an effective marketing department or sales force;
- the cost of establishing a marketing department or sales force may exceed our available financial resources and the revenue generated by CPI-444 or any other product candidates that we may develop, in-license or acquire; and
- our direct sales and marketing efforts may not be successful.

***Our future growth may depend, in part, on our ability to operate in foreign markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.***

Our future growth may depend, in part, on our ability to develop and commercialize our product candidates in foreign markets. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from applicable regulatory authorities in foreign markets, and we may never receive such regulatory approvals for any of our product candidates. To obtain separate regulatory approval in many other countries we must comply with numerous and varying regulatory requirements regarding safety and efficacy and governing, among other things, clinical trials, commercial sales, pricing and distribution of our product candidates. If we obtain regulatory approval of our product candidates and ultimately commercialize our product candidates in foreign markets, we would be subject to additional risks and uncertainties, including the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements and the reduced protection of intellectual property rights in some foreign countries.

***Governments may impose price controls, which may adversely affect our future profitability.***

We intend to seek approval to market our product candidates in both the United States and in foreign jurisdictions. In some foreign countries, particularly in the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product candidate. To obtain reimbursement or pricing approval in some countries, we may be required to conduct clinical trials to compare the cost-effectiveness of our product candidates to other available therapies, which is time-consuming and costly. If reimbursement of our future products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, we may be unable to achieve or sustain profitability.

**Risks Related to Our Business Operations**

***Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.***

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the timing and cost of, and level of investment in, research, development and commercialization activities relating to our product candidates, which may change from time to time;
- coverage and reimbursement policies with respect to our product candidates, if approved, and potential future drugs that compete with our product candidates;
- the cost of manufacturing our product candidates, which may vary depending on the quantity of production and the terms of our agreements with manufacturers;

- expenditures that we may incur to acquire, develop or commercialize additional product candidates and technologies;
- the level of demand for any approved products, which may vary significantly;
- future accounting pronouncements or changes in our accounting policies; and
- the timing and success or failure of clinical trials for our product candidates or competing product candidates, or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners.

The cumulative effects of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance.

This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated revenue or earnings guidance we may provide.

***We are dependent on the services of our President and Chief Executive Officer, Richard A. Miller, M.D., and other key executives, and if we are not able to retain these members of our management or recruit additional management, clinical and scientific personnel, our business will suffer.***

We are dependent on the principal members of our management and scientific staff. The loss of service of any of our management could harm our business. In addition, we are dependent on our continued ability to attract, retain and motivate highly qualified management, clinical and scientific personnel. If we are not able to retain our management, particularly our President and Chief Executive Officer, Dr. Miller, and to attract, on acceptable terms, additional qualified personnel necessary for the continued development of our business, we may not be able to sustain our operations or grow. Although we have executed employment agreements with each member of our current executive management team, including Dr. Miller, these agreements are terminable at will with or without notice and, therefore, we may not be able to retain their services as expected.

We will need to expand and effectively manage our managerial, operational, financial and other resources in order to successfully pursue our clinical development and commercialization efforts. We may not be able to attract or retain qualified management and scientific and clinical personnel in the future due to the intense competition for qualified personnel among pharmaceutical, biotechnology and other businesses, particularly in the San Francisco Bay Area. Our industry has experienced a high rate of turnover of management personnel in recent years. If we are not able to attract, integrate, retain and motivate necessary personnel to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our development objectives, our ability to raise additional capital and our ability to implement our business strategy.

In addition, we do not currently maintain "key person" life insurance on the lives of our executives or any of our employees. This lack of insurance means that we may not have adequate compensation for the loss of the services of these individuals.

***We may encounter difficulties in managing our growth and expanding our operations successfully.***

We will need to grow our organization substantially to continue development and pursue the potential commercialization of CPI-444 and our other product candidates, as well as function as a

public company. As of December 31, 2015, we had 33 full-time employees. As we seek to advance CPI-444 and other product candidates, we will need to expand our financial, development, regulatory, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various strategic partners, suppliers and other third parties. Our future financial performance and our ability to commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively.

***We are subject to various federal and state healthcare laws and regulations, and our failure to comply with these laws and regulations could harm our results of operations and financial conditions.***

Although we do not currently have any products on the market, if we obtain FDA approval for any of our product candidates and begin commercializing those products in the United States, our operations may be directly, or indirectly through our customers and third-party payors, subject to various U.S. federal and state healthcare laws and regulations. These laws will affect our operations, sales and marketing practices, and our relationships with physicians and other customers and third-party payors. Such laws include:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it to have committed a violation; in addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act);

- the federal False Claims Act, which imposes criminal and civil penalties, including through 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 (HIPAA), which imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, which also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

- the federal Physician Payment Sunshine Act, which requires manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the government information related to payments or other "transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and requires applicable manufacturers and group purchasing organizations to report annually to the government ownership and investment interests held by the physicians described above and their immediate family members and payments or other "transfers of value" to such

physician owners (manufacturers are required to submit reports to the government by the 90th day of each calendar year); and

- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government; state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign laws governing the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Ensuring that our internal operations and business arrangements with third-parties comply with applicable healthcare laws and regulations could involve substantial costs. If our operations are found to be in violation of such laws or any other governmental laws and regulations that may apply to us, we may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, exclusion from U.S. government funded healthcare programs, such as Medicare and Medicaid, disgorgement, individual imprisonment, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of our operations.

***We and any of our potential future collaborators, third-party manufacturers and suppliers will use biological materials and may use hazardous materials, and any claims relating to improper handling, storage or disposal of these materials could be time consuming or costly.***

We and any of our potential future collaborators, third-party manufacturers or suppliers will use biological materials and may use hazardous materials, including chemicals and biological agents and compounds that could be dangerous to human health and safety of the environment. Our operations and the operations of our third-party manufacturers and suppliers also produce hazardous waste products. Federal, state and local laws and regulations govern the use, generation, manufacture, storage, handling and disposal of these materials and wastes. Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental laws and regulations may impair our product development efforts. In addition, we cannot eliminate the risk of accidental injury or contamination from these materials or wastes. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. In the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended.

***If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of CPI-444 or our other product candidates.***

We face an inherent risk of product liability as a result of the clinical testing of CPI-444 and our other product candidates and will face an even greater risk if we commercialize our product candidates. For example, we may be sued if CPI-444 or our other product candidates allegedly cause injury or are found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product candidate, negligence, strict liability and a breach of warranties. Claims could also be asserted under state consumer protection acts.

If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit or cease the commercialization of our product candidates. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for CPI-444 or our other product candidates;
- injury to our reputation;
- withdrawal of clinical trial participants;
- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- the inability to commercialize CPI-444 or our other product candidates; and
- a decline in our stock price.

We do not currently maintain product liability insurance. In the future, we plan to obtain product liability insurance coverage in an amount and on terms and conditions that are customary for similarly situated companies and that are satisfactory to our board of directors. Our inability to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of CPI-444 or our other product candidates. Although we plan to maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies will also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

***We and any of our potential future collaborators will be required to report to regulatory authorities if any of our approved products cause or contribute to adverse medical events, and any failure to do so would result in sanctions that would materially harm our business.***

If we and any of our potential future collaborators are successful in commercializing our products, the FDA and foreign regulatory authorities would require that we and any of our potential future collaborators report certain information about adverse medical events if those products may have caused or contributed to those adverse events. The timing of our obligation to report would be triggered by the date we become aware of the adverse event as well as the nature of the event. We and any of our potential future collaborators or CROs may fail to report adverse events within the prescribed timeframe. If we or any of our potential future collaborators or CROs fail to comply with such reporting obligations, the FDA or a foreign regulatory authority could take action, including criminal prosecution, the imposition of civil monetary penalties, seizure of our products or delay in approval or clearance of future products.

***Our internal computer systems, or those of any of our potential future collaborators, CROs or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product development programs.***

Despite the implementation of security measures, our internal computer systems and those of our current and any future CROs and other contractors, consultants and collaborators are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations, whether due to a loss of our trade secrets or other similar disruptions. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. We also rely on third parties to manufacture our product candidates, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development and commercialization of our product candidates could be delayed.

***Our information technology systems could face serious disruptions that could adversely affect our business.***

Our information technology and other internal infrastructure systems, including corporate firewalls, servers, leased lines and connection to the Internet, face the risk of systemic failure that could disrupt our operations. A significant disruption in the availability of our information technology and other internal infrastructure systems could cause interruptions and delays in our research and development work.

***Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.***

Our operations could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or manmade disasters or business interruptions, for which we are predominantly self-insured. We rely on third-party manufacturers to produce CPI-444 and our other product candidates. Our ability to obtain clinical supplies of CPI-444 or our other product candidates could be disrupted if the operations of these suppliers were affected by a man-made or natural disaster or other business interruption. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses.

***Our employees, independent contractors, principal investigators, CROs, consultants and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.***

We are exposed to the risk that our employees, independent contractors, principal investigators, CROs, consultants and vendors may engage in misconduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct involving the improper use or misrepresentation of information obtained in the course of clinical trials, the creation of fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. In addition, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our

rights, those actions could have a significant impact on our business, including the imposition of fines and other sanctions.

**Risks Related to Our Intellectual Property**

***Our rights to develop and commercialize our product candidates are subject in part to the terms and conditions of licenses granted to us by other companies. The patent protection, prosecution and enforcement for some of our product candidates may be dependent on third parties.***

We currently are heavily reliant upon licenses of certain patent rights and proprietary technology from third parties that is important or necessary to the development of our technology and products, including technology related to our product candidates. For example, we rely on our license agreement with Vernalis for all of our rights with respect to the intellectual property covering our CPI-444 product candidate and certain development candidates under our A2B receptor antagonist program. Further, we rely on our license agreement with The Scripps Research Institute for certain materials and rights related to our humanized monoclonal anti-CD73 antibody program. These and other licenses we may enter into in the future may not provide adequate rights to use such intellectual property and technology in all relevant fields of use or in all territories in which we may wish to develop or commercialize our technology and products in the future. As a result, we may not be able to develop and commercialize our technology and products in fields of use and territories for which we are not granted rights pursuant to such licenses.

Licenses to additional third-party technology that may be required for our development programs may not be available in the future or may not be available on commercially reasonable terms, which could have a material adverse effect on our business and financial condition.

In some circumstances, we may not have the right to control the preparation, filing, prosecution and enforcement of patent applications, or to maintain the patents, covering technology that we license from third parties. In addition, some of our agreements with our licensors require us to obtain consent from the licensor before we can enforce patent rights, and our licensor may withhold such consent or may not provide it on a timely basis. Therefore, we cannot be certain that our licensors or collaborators will prosecute, maintain, enforce and defend such intellectual property rights in a manner consistent with the best interests of our business, including by taking reasonable measures to protect the confidentiality of know-how and trade secrets, or by paying all applicable prosecution and maintenance fees related to intellectual property registrations for any of our product candidates. We also cannot be certain that our licensors have drafted or prosecuted the patents and patent applications licensed to us in compliance with applicable laws and regulations, which may affect the validity and enforceability of such patents or any patents that may issue from such applications. If they fail to do so, this could cause us to lose rights in any applicable intellectual property that we in-license, and as a result our ability to develop and commercialize products or product candidates may be adversely affected and we may be unable to prevent competitors from making, using and selling competing products.

***Our success depends on our ability to protect our intellectual property and our proprietary technologies.***

Our commercial success depends in part on our ability to obtain and maintain patent protection and trade secret protection for our product candidates, proprietary technologies and their uses as well as our ability to operate without infringing upon the proprietary rights of others. We generally seek to protect our proprietary position by filing patent applications in the United States and abroad related to our product candidates, proprietary technologies and their uses that are important to our business. There can be no assurance that our patent applications or those of our licensors will result in additional patents being issued or that issued patents will afford sufficient protection against competitors with similar technology, nor can there be any assurance that the patents issued will not be infringed, designed around or invalidated by third parties. Even issued patents may later be found invalid or unenforceable or may be modified or revoked in proceedings instituted by third parties before various patent offices or in courts. The degree of future protection for our proprietary rights is

uncertain. Only limited protection may be available and may not adequately protect our rights or permit us to gain or keep any competitive advantage. This failure to properly protect the intellectual property rights relating to our product candidates could have a material adverse effect on our financial condition and results of operations.

While we have rights to an issued composition-of-matter patent in the United States and corresponding issued patents in certain foreign territories covering CPI-444, we cannot be certain that the claims in any of our patent applications covering composition-of-matter of our other product candidates will be considered patentable by the United States Patent and Trademark Office (USPTO), courts in the United States or by the patent offices and courts in foreign countries, nor can we be certain that the claims in our issued composition-of-matter patents will not be found invalid or unenforceable if challenged.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or any of our potential future collaborators will be successful in protecting our product candidates by obtaining and defending patents. These risks and uncertainties include the following:

- the USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process, the noncompliance with which can result in abandonment or lapse of a patent or patent application, and partial or complete loss of patent rights in the relevant jurisdiction;
- patent applications may not result in any patents being issued;
- patents that may be issued or in-licensed may be challenged, invalidated, modified, revoked, circumvented, found to be unenforceable or otherwise may not provide any competitive advantage;
- our competitors, many of whom have substantially greater resources than we do and many of whom have made significant investments in competing technologies, may seek or may have already obtained patents that will limit, interfere with or eliminate our ability to make, use and sell our potential product candidates;
- there may be significant pressure on the U.S. government and international governmental bodies to limit the scope of patent protection both inside and outside the United States for disease treatments that prove successful, as a matter of public policy regarding worldwide health concerns; and
- countries other than the United States may have patent laws less favorable to patentees than those upheld by U.S. courts, allowing foreign competitors a better opportunity to create, develop and market competing product candidates.

The patent prosecution process is also 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. Although we enter into non-disclosure and confidentiality agreements with parties who have access to patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach such agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our patents, if issued, or the patent rights that we license from others, may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity 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 products, or limit the duration of the patent protection of our products and product candidates. 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 intellectual property may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

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

In addition, we rely on the protection of our trade secrets, including unpatented know-how, technology and other proprietary information to maintain our competitive position. Although we have taken steps to protect our trade secrets and unpatented know-how, including entering into confidentiality agreements with third parties, and confidential information and inventions agreements with employees, consultants and advisors. Despite these efforts, we cannot provide any assurances that all such agreements have been duly executed, and 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. Moreover, third parties may still obtain this information or may come upon this or similar information independently, and we would have no right to prevent them from using that technology or information to compete with us. If any of these events occurs or if we otherwise lose protection for our trade secrets, the value of this information may be greatly reduced and our competitive position would be harmed. If we do not apply for patent protection prior to such publication or if we cannot otherwise maintain the confidentiality of our proprietary technology and other confidential information, then our ability to obtain patent protection or to protect our trade secret information may be jeopardized.

***Our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of third parties. Claims by third parties that we infringe their proprietary rights may result in liability for damages or prevent or delay our developmental and commercialization efforts.***

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. Other entities may have or obtain patents or proprietary rights that could limit our ability to make, use, sell, offer for sale or import our product candidates and future approved products or impair our competitive position. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, reexaminations, inter partes review (IPR) proceedings and post-grant review (PGR) proceedings before the USPTO and/or corresponding foreign patent offices. Numerous third-party U.S. and foreign issued patents and pending patent applications exist in the fields in which we are developing product candidates. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. For example, we are aware of an issued patent in Australia that may be relevant to commercialization of CPI-444 in that country. That Australian patent is expected to expire in 2022. Our ability to commercialize CPI-444 in Australia prior to 2022 could be adversely affected if we do not obtain a license under such patent. We are also aware of a corresponding patent application pending in the United States which is subject to a non-final rejection from the USPTO. Claims similar to those currently pending in the U.S. application were not accepted and did not issue in corresponding applications in Europe and other major jurisdictions. If a patent issues from such U.S. patent application with claims similar to those that are currently pending, our ability to commercialize CPI-444 in the United States may be adversely affected if we do not obtain a license under such

patent. As the biotechnology industry expands and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of the patent rights of third parties. Because patent applications are maintained as confidential for a certain period of time, until the relevant application is published we may be unaware of third-party patents that may be infringed by commercialization of CPI-444 or our other product candidates, and cannot be certain that we were the first to file a patent application related to a product candidate or technology. Moreover, because patent applications can take many years to issue, there may be currently-pending patent applications that may later result in issued patents that our product candidates may infringe. In addition, identification of third-party patent rights that may be relevant to our technology is difficult because patent searching is imperfect due to differences in terminology among patents, incomplete databases and the difficulty in assessing the meaning of patent claims. Any claims of patent infringement asserted by third parties would be time consuming and could:

- result in costly litigation;
- divert the time and attention of our technical personnel and management;
- cause development delays;
- prevent us from commercializing CPI-444 or our other product candidates until the asserted patent expires or is held finally invalid or not infringed in a court of law;
- require us to develop non-infringing technology, which may not be possible on a cost-effective basis; or
- require us to enter into royalty or licensing agreements, which may not be available on commercially reasonable terms, or at all.

Although no third party has asserted a claim of patent infringement against us as of the date of this prospectus, others may hold proprietary rights that could prevent CPI-444 or our other product candidates from being marketed. Any patent-related legal action against us claiming damages and seeking to enjoin commercial activities relating to our product candidates or processes could subject us to potential liability for damages, including treble damages if we were determined to willfully infringe, and require us to obtain a license to manufacture or market CPI-444 or our other product candidates. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. We cannot predict whether we would prevail in any such actions or that any license required under any of these patents would be made available on commercially acceptable terms, if at all. Moreover, even if we or our future strategic partners were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property. In addition, we cannot be certain that we could redesign our product candidates or processes to avoid infringement, if necessary. Accordingly, an adverse determination in a judicial or administrative proceeding, or the failure to obtain necessary licenses, could prevent us from developing and commercializing CPI-444 or our other product candidates, which could harm our business, financial condition and operating results. In addition, intellectual property litigation, regardless of its outcome, may cause negative publicity and could prohibit us from marketing or otherwise commercializing our product candidates and technology.

***We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time consuming, and unsuccessful. Further, our issued patents could be found invalid or unenforceable if challenged in court.***

Competitors may infringe our intellectual property rights or those of our licensors. To prevent infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in a patent infringement proceeding, a court may decide that a patent we own or in-license is not valid, is unenforceable and/or is not infringed. If we or any of our potential future collaborators were to initiate legal proceedings against a third party to enforce a

patent directed at one of our product candidates, the defendant could counterclaim that our patent is invalid and/or unenforceable in whole or in part. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge include an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could include an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO or made a misleading statement during prosecution. Third parties may also raise similar claims before the USPTO, even outside the context of litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable, and prior art could render our patents or those of our licensors invalid. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on such product candidate. Such a loss of patent protection would have a material adverse impact on our business.

Interference proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our licensors. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Our defense of litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. In addition, the uncertainties associated with litigation could have a material adverse effect on our ability to raise the funds necessary to continue our clinical trials, continue our research programs, license necessary technology from third parties or enter into development or manufacturing partnerships that would help us bring our product candidates to market.

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

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. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common stock.

***Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents.***

On September 16, 2011, the Leahy-Smith America Invents Act (Leahy-Smith Act), was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications will be prosecuted and may also affect patent litigation. In particular, under the Leahy-Smith Act, the United States transitioned in March 2013 to a "first to file" system in which the first inventor to file a patent application will be entitled to the patent. Third parties are allowed to submit prior art before the issuance of a patent by the USPTO,

and may become involved in post-grant proceedings including opposition, derivation, reexamination, inter-partes 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 or enforceability of, or invalidate, our patent rights, which could adversely affect our competitive position.

***We may not be successful in obtaining or maintaining necessary rights to our product candidates through acquisitions and in-licenses.***

We currently have rights to the intellectual property, through licenses from third parties and under patents that we own, to develop our product candidates. Because our programs may require the use of proprietary rights held by third parties, the growth of our business will depend in part on our ability to acquire, in-license or use these proprietary rights. For example, our product candidates may require specific formulations to work effectively and efficiently and the rights to these formulations may be held by others. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify as necessary for our product candidates. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies are also pursuing strategies to license or acquire third-party intellectual property rights 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. 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 third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment.

We have collaborated with U.S. academic institutions and may in the future collaborate with U.S. and foreign academic institutions to accelerate our preclinical research or development under written agreements with these institutions. These institutions may provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration. Regardless of such option, we may be unable to negotiate a license within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to other parties, potentially blocking our ability to pursue our program.

If we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may have to abandon development of that program and our business and financial condition could suffer.

***We may fail to comply with any of our obligations under existing agreements pursuant to which we license or have otherwise acquired intellectual property rights or technology, which could result in the loss of rights or technology that are material to our business.***

Licensing of intellectual property is of critical importance to our business and involves complex legal, business and scientific issues. We are party to various agreements that we depend on for rights to use various technologies that are material to our business, including intellectual property rights covering CPI-444 and methods relating to its use and manufacture. In each of these cases, our rights to use the licensed intellectual property are subject to the continuation of and our compliance with the terms of these agreements. Disputes may arise regarding our rights to intellectual property licensed to us from a third party, including but not limited to:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights;

- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the ownership of inventions and know-how resulting from the creation or use of intellectual property by us, alone or with our licensors and collaborators;
- the scope and duration of our payment obligations;
- our rights upon termination of such agreement; and
- the scope and duration of exclusivity obligations of each party to the agreement.

If disputes over intellectual property and other rights that we have licensed or acquired from third parties prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates. If we fail to comply with our obligations under current or future licensing agreements, these agreements may be terminated or the scope of our rights under them may be reduced and we might be unable to develop, manufacture or market any product that is licensed under these agreements.

***We may be subject to claims that we have wrongfully hired an employee from a competitor or that we or our employees have wrongfully used or disclosed alleged confidential information or trade secrets of their former employers.***

As is common in the pharmaceutical industry, in addition to our employees, we engage the services of consultants to assist us in the development of our product candidates. Many of these consultants, and many of our employees, were previously employed at, or may have previously provided or may be currently providing consulting services to, other pharmaceutical companies including our competitors or potential competitors. We may become subject to claims that we, our employees or a consultant inadvertently or otherwise used or disclosed trade secrets or other information proprietary to their former employers or their former or current clients. 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, which could adversely affect our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to our management team.

***We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.***

We may also be subject to claims that former employees, collaborators or other third parties have an ownership interest in our patents or other intellectual property. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and distraction to management and other employees.

***If we do not obtain patent term extension for our product candidates, our business may be materially harmed.***

Depending upon the timing, duration and specifics of FDA marketing approval of CPI-444 or other product candidates, one or more of our U.S. patents may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984 (Hatch-Waxman Amendments). The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, we may not be granted an extension because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent

protection afforded could be less than we request. If we are unable to obtain patent term extension or restoration or the term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our revenue could be reduced, possibly materially.

***If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.***

Our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our financial condition or results of operations.

***Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our product candidates.***

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involve a high degree of technological and legal complexity. Therefore, obtaining and enforcing biopharmaceutical patents is costly, time consuming and inherently uncertain. In addition, Congress may pass patent reform legislation that is unfavorable to us. The Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents we might obtain in the future.

***We may not be able to protect our intellectual property rights throughout the world.***

While we have issued patents directed at CPI-444 in the United States and pending patent applications directed at CPI-444 and other product candidates in the United States and other countries, filing, prosecuting and defending patents on CPI-444 and our other product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as that in the United States. These products may compete with our product candidates, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

The legal systems of many foreign countries do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

***Intellectual property rights do not necessarily address all potential threats to our competitive advantage.***

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make adenosine antagonists that are similar to our product candidates but that are not covered by the claims of the patents that we own or have exclusively licensed;
- we or our licensors or future collaborators might not have been the first to make the inventions covered by the issued patent or pending patent application that we own or have exclusively licensed;
- we or our licensors or future collaborators might not have been the first to file patent applications covering certain of our inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our pending patent applications will not lead to issued patents;
- issued patents that we own or have exclusively licensed may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business, results of operations and prospects.

**Risks Related to Our Common Stock and this Offering**

***An active, liquid and orderly market for our common stock may not develop, and you may not be able to resell your common stock at or above the public offering price.***

Prior to this offering, there has been no public market for our common stock. Although we intend to apply to list on common stock on The NASDAQ Global Market, an active trading market for our common stock may never develop or be sustained following this offering. We and the representatives of the underwriters will determine the initial public offering price of our common stock through negotiation. This price will not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, an active trading market may not

develop following the consummation of this offering or, if it is developed, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. An inactive market may also impair our ability to raise capital by selling shares and may impair our ability to acquire other businesses, applications or technologies using our shares as consideration, which, in turn, could materially adversely affect our business.

***The trading price of the shares of our common stock could be highly volatile, and 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 stock of pharmaceutical 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, investors may not be able to sell their common stock at or above the initial public offering price. The market price for our common stock may be influenced by those factors discussed in this "Risk Factors" section and many others, including:

- our ability to enroll subjects in our planned clinical trials;
- results of the clinical trials, and the results of trials of our competitors or those of other companies in our market sector;
- regulatory approval of CPI-444 and our other product candidates, or limitations to specific label indications or patient populations for its use, or changes or delays in the regulatory review process;
- regulatory developments in the United States and foreign countries;
- changes in the structure of healthcare payment systems, especially in light of current reforms to the U.S. healthcare system;
- the success or failure of our efforts to acquire, license or develop additional product candidates;
- innovations or new products developed by us or our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- manufacturing, supply or distribution delays or shortages;
- any changes to our relationship with any manufacturers, suppliers, collaborators or other strategic partners;
- achievement of expected product sales and profitability;
- variations in our financial results or those of companies that are perceived to be similar to us;
- market conditions in the pharmaceutical sector and issuance of securities analysts' reports or recommendations;
- trading volume of our common stock;
- an inability to obtain additional funding;
- sales of our stock by insiders and stockholders;
- general economic, industry and market conditions other events or factors, many of which are beyond our control;
- additions or departures of key personnel; and
- intellectual property, product liability or other litigation against us.

In addition, in the past, stockholders have initiated class action lawsuits against pharmaceutical companies following periods of volatility in the market prices of these companies' stock. Such litigation, if instituted against us, could cause us to incur substantial costs and divert management's attention and resources, which could have a material adverse effect on our business, financial condition and results of operations.

***Our failure to meet the continued listing requirements of The NASDAQ Global Market could result in a delisting of our common stock.***

If, after listing, we fail to satisfy the continued listing requirements of The NASDAQ Global Market, such as the corporate governance requirements or the minimum closing bid price requirement, NASDAQ may take steps to delist our common stock. Such a delisting would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with listing requirements would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the NASDAQ minimum bid price requirement or prevent future non-compliance with NASDAQ's listing requirements.

***We may allocate the net proceeds from this offering in ways that you and other stockholders may not approve.***

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section titled "Use of Proceeds." Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment, and the failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

***You will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase.***

The initial public offering price of our common stock is substantially higher than the pro forma as adjusted net tangible book value per share of our outstanding common stock immediately after the completion of this offering. Purchasers of common stock in this offering will experience immediate dilution of approximately $ per share, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus. In the past, we issued options to acquire common stock at prices significantly below the initial public offering price. To the extent these outstanding options are ultimately exercised, investors purchasing common stock in this offering will sustain further dilution. For a further description of the dilution that you will experience immediately after this offering, see "Dilution."

***Because a small number of our existing stockholders own a majority of our voting stock, your ability to influence corporate matters will be limited.***

Following the completion of this offering, our executive officers, directors and greater than 5% stockholders, in the aggregate, will own approximately % of our outstanding common stock (assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options). As a result, such persons, acting together, will have the ability to control our

management and affairs and substantially all matters submitted to our stockholders for approval, including the election and removal of directors and approval of any significant transaction. These persons will also have the ability to control our management and business affairs. This concentration of ownership may have the effect of delaying, deferring or preventing a change in control, impeding a merger, consolidation, takeover or other business combination involving us, or discouraging a potential acquiror from making a tender offer or otherwise attempting to obtain control of our business, even if such a transaction would benefit other stockholders.

***We do not currently intend to pay dividends on our common stock, and, consequently, your ability to achieve a return on your investment will depend on appreciation, if any, in the price of our common stock.***

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which stockholders have purchased their shares.

***Sales of a substantial number of shares of our common stock by our existing stockholders in the public market could cause our stock price to fall.***

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur could significantly reduce the market price of our common stock and impair our ability to raise adequate capital through the sale of additional equity securities.

Based on shares of common stock outstanding as of December 31, 2015, upon the closing of this offering, we will have outstanding a total of shares of common stock after this offering, assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options. Of these shares, only the shares of common stock sold in this offering by us, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering, unless they are purchased by one of our affiliates.

Our directors and executive officers and holders of substantially all of our outstanding securities have entered into lock-up agreements with the underwriters pursuant to which they may not, with limited exceptions, for a period of 180 days from the date of this prospectus, offer, sell or otherwise transfer or dispose of any of our securities, without the prior written consent of Credit Suisse Securities (USA) LLC and Cowen and Company, LLC. The underwriters may permit our officers, directors and other stockholders and the holders of our outstanding options who are subject to the lock-up agreements to sell shares prior to the expiration of the lock-up agreements, subject to limitations. See "Underwriting." Sales of these shares, or perceptions that they will be sold, could cause the trading price of our common stock to decline. After the lock-up agreements expire, up to an additional shares of common stock will be eligible for sale in the public market of which shares are held by directors, executive officers and greater than 5% stockholders and will be subject to volume limitations under Rule 144 under the Securities Act.

In addition, as of December 31, 2015, up to shares of common stock that were subject to outstanding options under our employee benefit plans as of such date will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of approximately 14.3 million shares of our outstanding common stock, or approximately % of our total outstanding common stock as of December 31, 2015, will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to vesting and the 180-day lock-up agreements described above. See "Description of Capital Stock—Registration Rights." Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares held by affiliates, as defined in Rule 144 under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

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

We are an "emerging growth company," as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of Sarbanes-Oxley, reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements and exemptions from the requirements of holding nonbinding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an emerging growth company until the earlier of (1) the last day of the fiscal year following the fifth anniversary of the completion of this offering, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.0 billion, (3) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such fiscal year, or (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period. If investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

***We will incur significant 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. We will be subject to the reporting requirements of the Exchange Act, which will require, among other things, that we file with the SEC annual, quarterly and current reports with respect to our business and financial condition. In addition, Sarbanes-Oxley, as well as rules subsequently adopted by the SEC, and The NASDAQ Global Market to implement provisions of Sarbanes-Oxley, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC has adopted additional rules and regulations in these areas, such as mandatory "say on pay" voting requirements that will apply to us when we cease to be an emerging growth company. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

We expect the rules and regulations applicable to public companies to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly. If these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of

operations. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur substantial costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

***If securities or industry analysts do not publish research or reports or publish unfavorable research or reports about our business, our stock price and trading volume could decline.***

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us, our business, our market or our competitors. We do not currently have and may never obtain research coverage by securities and industry analysts. If no securities or industry analysts commence coverage of the Company, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry analyst coverage, if one or more of the analysts who covers us downgrades our stock, our stock price would likely decline. If one or more of these analysts ceases to cover us or fails to regularly publish reports on us, interest in our stock could decrease, which could cause our stock price or trading volume to decline.

***If we fail to maintain proper and effective internal control over financial reporting, our ability to produce accurate and timely financial statements could be impaired, investors may lose confidence in our financial reporting and the trading price of our common stock may decline.***

Pursuant to Section 404 of Sarbanes-Oxley, our management will be required to report upon the effectiveness of our internal control over financial reporting beginning with the annual report for our fiscal year ending December 31, 2017. When we lose our status as an "emerging growth company" and reach an accelerated filer threshold, our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, we will need to upgrade our systems including information technology; implement additional financial and management controls, reporting systems and procedures; and hire additional accounting and finance staff. If we or, if required, our auditors are unable to conclude that our internal control over financial reporting is effective, investors may lose confidence in our financial reporting and the trading price of our common stock may decline.

We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, results of operations or cash flows. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting once that firm begin its Section 404 reviews, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by The NASDAQ Stock Market, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

***Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable and may lead to entrenchment of management.***

Our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect immediately prior to the consummation of this offering will contain provisions that could significantly reduce the value of our shares to a potential acquiror or delay or prevent changes in control or changes in our management without the consent of our board of directors. The provisions in our charter documents will include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors, unless the board of directors grants such right to the stockholders, to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the required approval of at least $66^{2}/_{3}\%$ of the shares entitled to vote to remove a director for cause, and the prohibition on removal of directors without cause;
- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the ability of our board of directors to alter our amended and restated bylaws without obtaining stockholder approval;
- the required approval of at least $66^{2}/_{3}\%$ of the shares entitled to vote to adopt, amend or repeal our amended and restated bylaws or repeal the provisions of our amended and restated certificate of incorporation regarding the election and removal of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- an exclusive forum provision providing that the Court of Chancery of the State of Delaware will be the exclusive forum for certain actions and proceedings;
- the requirement that a special meeting of stockholders may be called only by the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

We are also subject to the anti-takeover provisions contained in Section 203 of the Delaware General Corporation Law. Under Section 203, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other exceptions, the board of directors has approved the transaction. For a description of our capital stock, see the section titled "Description of Capital Stock."

***Our amended and restated certificate of incorporation and amended and restated bylaws will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.***

Our amended and restated certificate of incorporation and amended and restated bylaws will provide that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine. This provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find this provision in our amended and restated certificate of incorporation and amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition.

***Our ability to use net operating loss carryforwards and other tax attributes may be limited in connection with this offering or other ownership changes.***

We have incurred substantial losses during our history and do not expect to become profitable in the near future, and we may never achieve profitability. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire. As of December 31, 2015, we had federal net operating loss (NOL) carryforwards of approximately $11.7 million and state NOL carryforwards of approximately $11.7 million available to offset future taxable income. If not utilized, the federal and state NOL carryforwards will begin to expire in various years beginning in 2034. As of December 31, 2015, we also had $0.3 million of federal and $0.3 million of state research and development tax credit carryforwards available to reduce future income taxes. The federal research and development tax credits will begin to expire in 2035, if not utilized. The state research and development tax credits have no expiration date. Utilization of NOL carryforwards and credits may be subject to an annual limitation due to the "ownership change" provisions under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, and similar state provisions. An "ownership change" is generally defined as a cumulative change in the ownership interest of significant stockholders over a three-year period in excess of 50 percentage points. We may have experienced an ownership change in 2015 and could experience ownership changes in the future, including in connection with this offering. Such ownership changes could result in the expiration of our NOL carryforwards and other tax attributes before they can be utilized and, if we are profitable, our future cash flows could be adversely affected due to our increased tax liability.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. All statements other than statements of historical facts contained in this prospectus are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may," "could," "will," "would," "should," "expect," "plan," "anticipate," "believe," "estimate," "intend," "predict," "seek," "contemplate," "potential" or "continue" or the negative of these terms or other comparable terminology. These forward-looking statements include, but are not limited to, statements about:

- the anticipated timing, costs and conduct of our planned preclinical studies and clinical trials for CPI-444 and other product candidates in our development programs;
- our ability to develop, acquire and advance product candidates into, and successfully complete, clinical trials;
- the timing or likelihood of regulatory filings and approvals for CPI-444 and our other product candidates;
- our ability to commercialize CPI-444, if approved, and our other product candidates;
- our expectations regarding the clinical effectiveness of our product candidates;
- our commercialization, marketing and manufacturing capabilities and strategy;
- the pricing and reimbursement of our product candidates, if approved;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates, including projected terms of patent protection;
- the potential benefits of strategic collaborations and our ability to enter into strategic arrangements;
- our expectations related to the use of proceeds from this offering;
- developments and projections relating to our competitors and our industry, including competing therapies;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing; and
- our financial performance.

These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Factors that may cause actual results to differ materially from current expectations include, among other things, those described under the heading "Risk Factors" and elsewhere in this prospectus.

Any forward-looking statement in this prospectus reflects our current views with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to our operations, results of operations, industry and future growth. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements speak only as of the date of this prospectus. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

## MARKET, INDUSTRY AND OTHER DATA

This prospectus contains estimates, projections and other information concerning our industry, our business and the markets for certain drugs, including data regarding the estimated size of those markets, their projected growth rates and the incidence of certain medical conditions. Information that is based on estimates, forecasts, projections or similar methodologies is inherently subject to uncertainties, and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by third parties, industry, medical and general publications, government data and similar sources. In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires.

## USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $ million at an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise in full their option to purchase additional shares of common stock, we estimate that the net proceeds will be approximately $ million after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. Each $1.00 increase or decrease in the assumed initial public offering price of $ would increase or decrease, respectively, our net proceeds by approximately $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase or decrease of 1,000,000 in the number of shares we are offering would increase or decrease, respectively, the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $ million, assuming the assumed initial public offering price stays the same.

We expect to use our existing capital resources and the net proceeds from this offering as follows:

- approximately $ million to fund the ongoing clinical development of CPI-444, including our Phase 1/1b clinical trial;
- approximately $ million to fund the preclinical development of our anti-CD73 adenosine production inhibitor, our adenosine A2B receptor antagonist and our ITK inhibitor; while we expect the majority of this amount will be allocated to our anti-CD73 adenosine production inhibitor, the allocation of funds among these product candidates will largely depend on their performance in preclinical trials, which we are unable to predict; and
- the remainder for early-stage research and development of other programs and potential future development programs, potential in-licensing of technology or products, capital expenditures, working capital and other general corporate purposes.

However, due to the uncertainties inherent in the clinical development and regulatory approval process, it is difficult to estimate with certainty the exact amounts of the net proceeds from this offering that may be used for the above purposes. We may also find it necessary or advisable to use the net proceeds from this offering for other purposes. Accordingly, our management will retain broad discretion over the use of the net proceeds from this offering. The amounts and timing of our expenditures will depend upon numerous factors. For instance, the amounts and timing of our expenditures will in part depend on the time and cost necessary to conduct our Phase 1/1b clinical trial, which will largely depend on the number of patient cohorts that we expand as a result of patient responses. Because we cannot predict which cohorts, if any, we will expand, there can be no assurance that our existing capital resources and the net proceeds from this offering will be sufficient to fund our clinical trial for any specific cohort to completion, and we do not expect such amounts to be sufficient to fund the full clinical trial to completion. Furthermore, the amounts and timing of our expenditures will depend on (1) the time and cost associated with clinical trials and preclinical development of other product programs; (2) the results of any clinical trials and other studies; and (3) other factors described under the heading "Risk Factors" included elsewhere in this prospectus.

Following this offering, we will require substantial capital in order to complete clinical development and commercialize CPI-444 and complete the clinical development of any additional product candidates. For additional information regarding our potential capital requirements, see "Even if this offering is successful, we will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to

delay, limit, reduce or terminate our product development, other operations or commercialization efforts" under the heading "Risk Factors."

Pending the use of the proceeds as described above, we intend to invest the net proceeds in interest-bearing investment-grade securities or government securities.

## DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We intend to retain all available funds and any future earnings to fund the development and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our board of directors.

## CAPITALIZATION

The following table sets forth our cash, cash equivalents and marketable securities and our capitalization as of December 31, 2015:

- on an actual basis;
- on a pro forma basis to give effect to: (1) the conversion of all of our outstanding shares of convertible preferred stock as of December 31, 2015 into an aggregate of 14,274,741 shares of common stock and (2) the filing and effectiveness of our amended and restated certificate of incorporation, which will occur, in each case, immediately prior to the consummation of this offering; and
- on a pro forma as adjusted basis to give further effect to the sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, after deducting the underwriting discount and commissions and estimated offering expenses payable by us.

You should read this information together with our financial statements and related notes appearing elsewhere in this prospectus and the information set forth under the headings "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

| | As of December 31, 2015 | | |
|---|---|---|---|
| (In thousands, except share and per share data) | Actual | Pro forma | Pro forma as Adjusted[1] |
| Cash, cash equivalents and marketable securities | $ 94,386 | $ 94,386 | $ |
| Convertible preferred stock, par value $0.0001 per share: 14,274,741 shares authorized, 14,274,741 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted | $ 125,780 | — | |
| Stockholders' (deficit) equity: | | | |
| Preferred stock, par value $0.0001 per share: no shares authorized, issued and outstanding, actual; 10,000,000 shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted | — | — | |
| Common stock, $0.0001 par value per share: 20,000,000 shares authorized, 1,431,615 shares issued and outstanding, actual; 290,000,000 shares authorized, 15,706,356 shares issued and outstanding, pro forma; and 290,000,000 shares authorized, shares issued and outstanding, pro forma as adjusted | — | 2 | |
| Additional paid-in capital | 440 | 126,218 | |
| Accumulated other comprehensive loss | (45) | (45) | |
| Accumulated deficit | (31,496) | (31,496) | |
| Total stockholders' (deficit) equity | (31,101) | 94,679 | |
| Total capitalization | $ 94,679 | $ 94,679 | $ |

(1) Each $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease, respectively, the amount of cash, cash equivalents and marketable securities, additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting

the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase or decrease of 1,000,000 in the number of shares we are offering would increase or decrease, respectively, the amount of cash, cash equivalents and marketable securities, stockholders' equity and total capitalization by approximately $ million, assuming the assumed initial public offering price per share, as set forth on the cover page of this prospectus, remains the same. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

The number of shares of common stock issued and outstanding actual, pro forma and pro forma as adjusted in the table above excludes the following shares as of December 31, 2015:

- 784,136 shares of common stock issuable upon exercise of stock options outstanding as of December 31, 2015 under our 2014 Equity Incentive Plan, having a weighted-average exercise price of $4.09 per share;
- 2,559,499 shares of common stock reserved for issuance pursuant to future awards under our 2014 Equity Incentive Plan as of December 31, 2015. Of such shares, we intend to grant option awards exercisable for approximately 948,250 shares to certain of our employees, executive officers and directors upon the pricing of this offering with an exercise price equal to the initial public offering price;
- 3,051,750 shares of common stock reserved for issuance pursuant to future awards under our 2016 Equity Incentive Award Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering; and
- 200,000 shares of common stock reserved for future issuance under our 2016 Employee Stock Purchase Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part.

## DILUTION

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

Net tangible book value per share is determined by dividing our total tangible assets less our total liabilities and convertible preferred stock that is not included in equity by the number of shares of common stock outstanding. Our historical net tangible book value as of December 31, 2015 was $(31.1) million, or $(21.72) per share. Our pro forma net tangible book value as of December 31, 2015 was $94.7 million, or $6.03 per share, based on the total number of shares of our common stock outstanding as of December 31, 2015, after giving effect to the conversion of all of our outstanding shares of convertible preferred stock as of December 31, 2015 into an aggregate of 14,274,741 shares of common stock immediately prior to the consummation of this offering.

Net tangible book value dilution per share to new investors represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after completion of this offering. After giving effect to our sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of December 31, 2015 would have been $ million, or $ per share. This represents an immediate increase in net tangible book value of $ per share to existing stockholders and an immediate dilution in net tangible book value of $ per share to purchasers of common stock in this offering, as illustrated in the following table:

| | | |
|---|---|---|
| Assumed initial public offering price per share | | $ |
| Historical net tangible book value per share as of December 31, 2015 | $ (21.72) | |
| Pro forma net tangible book value per share as of December 31, 2015 | 6.03 | |
| Increase in pro forma net tangible book value per share attributable to new investors in this offering | $ | |
| Pro forma as adjusted net tangible book value per share after this offering | | |
| Dilution per share to investors participating in this offering | | |

Each $1.00 increase or decrease in the assumed public offering price of $ per share, the mid-point of the price range set forth on the cover page of this prospectus, would increase or decrease, respectively, our pro forma as adjusted net tangible book value by $ million, or $ per share, and the dilution per share to investors participating in this offering by $ per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters' option to purchase additional shares from us is exercised in full, the pro forma as adjusted net tangible book value per share after this offering would be $ per share, the increase in pro forma as adjusted net tangible book value per share to existing stockholders would be $ per share and the dilution per share to investors participating in this offering would be $ per share. We may also increase or decrease the number of shares we are offering. Assuming the assumed public offering price per share remains the same, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, an increase of 1,000,000 in the number of shares we are offering would increase our pro forma as adjusted net tangible book value by approximately $ million, or $ per share, and decrease the dilution per share to investors participating in this offering by $ per share, and a decrease of 1,000,000 in the number of shares

we are offering would decrease our pro forma as adjusted net tangible book value by approximately $ , or $ per share, and increase the dilution per share to investors participating in this offering by $ per share. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

The following table presents, on a pro forma as adjusted basis as of December 31, 2015, the differences between the existing stockholders and the investors purchasing shares in this offering with respect to the number of shares purchased from us, the total consideration paid, which includes proceeds received from the issuance of common and preferred stock, cash received from the exercise of stock options and the value of any stock issued for services, and the average price paid or to be paid per share by existing stockholders and by new investors purchasing shares in this offering at an assumed initial public offering price of $ per share, before deducting the underwriting discounts and commissions and estimated offering expenses payable by us (in thousands, except per share amounts and percentages):

| | Shares Purchased | | Total Consideration | | Average Price Per Share |
|---|---|---|---|---|---|
| | Number | Percent | Amount | Percent | |
| Existing stockholders | | % | $ | % | $ |
| Investors purchasing shares in this offering | | | | | |
| Totals | | 100% | $ | 100% | |

The foregoing calculations exclude the following shares as of December 31, 2015:

- 784,136 shares of common stock issuable upon exercise of stock options outstanding as of December 31, 2015 under our 2014 Equity Incentive Plan, having a weighted-average exercise price of $4.09 per share;
- 2,559,499 shares of common stock reserved for issuance pursuant to future awards under our 2014 Equity Incentive Plan as of December 31, 2015. Of such shares, we intend to grant option awards exercisable for approximately 948,250 shares to certain of our employees, executive officers and directors upon the pricing of this offering with an exercise price equal to the initial public offering price;
- 3,051,750 shares of common stock reserved for issuance pursuant to future awards under our 2016 Equity Incentive Award Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering; and
- 200,000 shares of common stock reserved for future issuance under our 2016 Employee Stock Purchase Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part.

If the underwriters exercise in full their option to purchase additional shares of our common stock, our existing stockholders would own % and our new investors would own % of the total number of shares of our common stock outstanding upon completion of this offering. The total consideration paid by our existing stockholders would be approximately $ million, or %, and the total consideration paid by investors purchasing shares in this offering would be $ million, or %.

## SELECTED FINANCIAL DATA

The following selected data for the period from January 27, 2014 (inception) to December 31, 2014 and for the year ended December 31, 2015 and the balance sheet data as of December 31, 2014 and 2015 have been derived from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of our future results. You should read the following selected financial data in conjunction with "Management's Discussion and Analysis of Financial Condition and the Results of Operations" and our financial statements and the related notes included elsewhere in this prospectus.

| (In thousands, except share and per share data) | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| **Statements of Operations and Comprehensive Loss Data:** | | |
| Operating expenses: | | |
| Research and development | $ 38 | $ 11,352 |
| General and administrative | 123 | 2,418 |
| Total operating expenses | 161 | 13,770 |
| Loss from operations | (161) | (13,770) |
| Change in fair value of convertible preferred stock liability | — | (17,600) |
| Interest income | — | 35 |
| Net loss | $ (161) | $ (31,335) |
| Net loss per share—basic and diluted[(1)] | $ (0.95) | $ (83.86) |
| Shares used to compute net loss per share—basic and diluted[(1)] | 170,278 | 373,643 |
| Pro forma net loss per share—basic and diluted (unaudited)[(1)] | $ (0.30) | $ (1.54) |
| Shares used to compute pro forma net loss per share—basic and diluted (unaudited)[(1)] | 530,859 | 8,894,425 |
| Other comprehensive loss: | | |
| Unrealized loss on marketable securities | — | (45) |
| Total other comprehensive loss | — | (45) |
| Comprehensive loss | $ (161) | $ (31,380) |

(1) See Note 3 to our audited financial statements included elsewhere in this prospectus for an explanation of the calculations of our net loss per share—basic and diluted, the shares used to compute the net loss per share—basic and diluted, pro forma net loss per share—basic and diluted, and the shares used to compute the pro forma net loss per share—basic and diluted.

The table below presents our balance sheet data as of December 31, 2014 and 2015:

| (In thousands) | As of December 31 2014 | 2015 |
|---|---|---|
| **Balance Sheet Data:** | | |
| Cash and cash equivalents | $ 12,517 | $ 4,105 |
| Marketable securities | — | 90,281 |
| Working capital | 9,855 | 92,593 |
| Total assets | 12,529 | 98,459 |
| Convertible preferred stock liability | 2,600 | — |
| Convertible preferred stock | 10,011 | 125,780 |
| Additional paid-in capital | 2 | 440 |
| Accumulated deficit | (161) | (31,496) |
| Total stockholders' deficit | (159) | (31,101) |

## 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 "Selected Financial Data" and the financial statements and related notes included elsewhere in this prospectus. This discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed in "Risk Factors" and in other parts of this prospectus.*

### Overview

We are a clinical stage biopharmaceutical company focused on the development and commercialization of novel immuno-oncology therapies that are designed to harness the immune system to attack cancer cells. Since we began operations in November 2014, we have built a pipeline of four immuno-oncology programs, three of which focus on the adenosine-cancer axis to modulate an immune response. Our lead product candidate, CPI-444, is an oral, small molecule antagonist of the A2A receptor for adenosine, an immune checkpoint. In January 2016, we began enrolling patients in a large expansion cohort trial for CPI-444. This Phase 1/1b clinical trial is designed to examine safety, tolerability, biomarkers and preliminary efficacy of CPI-444 in several solid tumor types, both as a single agent and in combination with Genentech, Inc.'s investigational cancer immunotherapy, atezolizumab, a fully humanized monoclonal antibody targeting PDL-1. We have also chosen a lead development candidate for our second program, an anti-CD73 monoclonal antibody that inhibits the production of adenosine, and plan to select development candidates for our other two programs in 2016. We believe the breadth and status of our pipeline demonstrates our management team's expertise in understanding and developing immuno-oncology assets as well as in identifying product candidates that can be in-licensed and further developed internally to treat many types of cancer. We hold worldwide rights to all of our product candidates.

To date, substantially all of our efforts have been focused on the research, development and advancement of CPI-444, and we have not generated any revenue from product sales and, as a result, we have incurred significant losses. We expect to continue to incur significant research and development and general and administrative expenses related to our operations. Our net loss for the period from January 27, 2014 (inception) to December 31, 2014 and for the year ended December 31, 2015 was $0.2 million and $31.3 million, respectively. Net loss for the year ended December 31, 2015 includes a $17.6 million non-cash charge associated with the change in fair value of a convertible preferred stock liability. In June 2015, the convertible preferred stock liability terminated and the balance of $20.2 million was reclassified to convertible preferred stock. As of December 31, 2015, we had an accumulated deficit of $31.5 million. We expect to continue to incur losses for the foreseeable future, and we anticipate these losses will increase as we continue our development of, seek regulatory approval for and begin to commercialize CPI-444, and as we develop other product candidates. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods.

Since our inception and through December 31, 2015, we have funded our operations primarily through the sale and issuance of convertible preferred stock. In November 2014, January 2015 and June 2015, we received aggregate net proceeds of $33.3 million from the sale of our Series A convertible preferred stock. In September 2015, we received net proceeds of $74.8 million from the sale of our Series B convertible preferred stock. As of December 31, 2015, we had capital resources consisting of cash, cash equivalents and marketable securities of $94.4 million. We do not expect our existing capital resources, together with the net proceeds from this offering, to be sufficient to enable us to fund the completion of our clinical trials and remaining development program of CPI-444 through commercialization. In addition, our operating plan may change as a result of many factors, including those described elsewhere in this prospectus and others currently unknown to us, and we may need to

seek additional funds sooner than planned, through public or private equity, debt financings or other sources, such as strategic collaborations. Such financing would result in dilution to stockholders, imposition of debt covenants and repayment obligations or other restrictions that may affect our business. If we raise additional capital through strategic collaboration agreements, we may have to relinquish valuable rights to our product candidates, including possible future revenue streams. In addition, additional funding may not be available to us on acceptable terms or at all and any additional fundraising efforts may divert our management from its day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. Furthermore, even if we believe we have sufficient funds for our current or future operating plans, we may seek additional capital due to favorable market conditions or strategic considerations.

**Financial Overview**

***Revenue***

To date, we have not generated any revenues. We do not expect to receive any revenues from any product candidates that we develop unless and until we obtain regulatory approval and commercialize our products or enter into revenue-generating collaboration agreements with third parties.

***Research and Development Expenses***

Our research and development expenses consist primarily of costs incurred to conduct research, such as the discovery and development of our product candidates, as well as the in-licensing of CPI-444. We record research and development expenses as incurred. Research and development expenses consist of costs incurred for the discovery and development of our product candidates and include:

- employee-related expenses, including salaries, benefits, travel and non-cash stock-based compensation expense;
- external research and development expenses incurred under arrangements with third parties, such as contract research organizations, preclinical testing organizations, contract manufacturing organizations, academic and non-profit institutions and consultants;
- costs to acquire technologies to be used in research and development that have not reached technological feasibility and have no alternative future use;
- license fees; and
- other expenses, which include direct and allocated expenses for laboratory, facilities and other costs.

We plan to increase our research and development expenses substantially as we continue the development of our product candidates. Our current planned research and development activities include the following:

- enrollment and completion of our Phase 1/1b clinical trial of CPI-444;
- process development and manufacturing of drug supply for CPI-444;
- process development and manufacturing of drug supply for our anti-CD73 antibody to support IND-enabling studies; and
- preclinical studies under our other programs in order to select development product candidates in 2016.

In addition to our product candidates that are in clinical development, we believe it is important to continue substantial investment in potential new product candidates to build the value of our product candidate pipeline and our business.

Our expenditures on current and future preclinical and clinical development programs are subject to numerous uncertainties related to timing and cost to completion. The duration, costs and timing of clinical trials and development of product candidates will depend on a variety of factors, including many of which are beyond our control. The process of conducting the necessary clinical research to obtain regulatory approval is costly and time consuming, and the successful development of our product candidates is uncertain. The risks and uncertainties associated with our research and development projects are discussed more fully in the section of this prospectus titled "Risk Factors—Risks Related to the Discovery and Development of Our Product Candidates." As a result of these risks and uncertainties, we are unable to determine with any degree of certainty the duration and completion costs of our research and development projects or if, when or to what extent we will generate revenues from the commercialization and sale of any of our product candidates that obtain regulatory approval. We may never succeed in achieving regulatory approval for any of our product candidates.

***General and Administrative Expenses***

General and administrative expenses include personnel costs, expenses for outside professional services and allocated expenses. Personnel costs consist of salaries, benefits and stock-based compensation. Outside professional services consist of legal, accounting and audit services and other consulting fees. Allocated expenses consist of rent expense related to our office and research and development facility.

We expect to incur additional expenses as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the Securities and Exchange Commission and those of any national securities exchange on which our securities are traded, additional insurance expenses, investor relations activities and other administrative and professional services. We also expect to increase our administrative headcount significantly to operate as a public company and as we advance our product candidates through clinical development, which will also increase our general and administrative expenses.

***Change in Fair Value of Convertible Preferred Stock Liability***

Our Series A convertible preferred stock financing included two tranches of investment. The first tranche included two separate closings in November 2014 and January 2015, and the second tranche occurred in June 2015 following the occurrence of a defined triggering event under the financing transaction documents.

The change in the fair value of the convertible preferred stock liability is associated with the investors' right to purchase the second tranche of Series A convertible preferred stock at the same price per share as the first tranche. Changes in the fair value were recorded each period based on the estimated fair value of the convertible preferred stock liability until the option is exercised or expires. The option was deemed exercised upon the closing of the second tranche in June 2015, at which time the $20.2 million fair value of the convertible preferred stock liability was reclassified from a liability to convertible preferred stock.

**Critical Accounting Policies and Significant Judgments and Use of Estimates**

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States (U.S. GAAP). The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the

disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

***Convertible Preferred Stock Liability***

We have determined that our obligation to issue additional shares of our Series A convertible preferred stock under our Series A convertible preferred stock financing documents represented a freestanding financial instrument, which we accounted for as a liability, until the exercise of the option, which occurred on June 15, 2015. The freestanding convertible preferred stock liability was initially recorded at fair value, with fair value changes recognized in the statements of operations and comprehensive loss. We estimated the fair value of this liability using an option-pricing model that include assumptions for future financings, expected volatility, expected life, yield and risk-free interest rate. At the time of the exercise of the option, any remaining value of the convertible preferred stock liability was reclassified to convertible preferred stock with no further remeasurement required.

***Stock-Based Compensation***

Because our common stock is not currently publicly traded, our board of directors, with the assistance of management, uses significant judgment to estimate the fair value of our common stock. Following the closing of this offering, the fair value of our common stock will be the closing price of our common stock as reported on the date of the grant.

We recognize compensation costs related to stock-based awards granted to employees based on the estimated fair value of the awards on the date of grant, net of estimated forfeitures. We estimate the grant date fair value, and the resulting stock-based compensation expense, using the Black-Scholes valuation model. The grant date fair value of the stock-based awards is generally recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective awards. Stock-based compensation expense related to awards to non-employees is recognized based on the then-current fair value at each measurement date over the associated service period of the award, which is generally the vesting term, on a straight line basis. We have used the Black-Scholes valuation model to assist us in determining the fair value of stock-based awards. The Black-Scholes valuation model requires the use of subjective and complex assumptions which determine the fair value of stock-based awards.

Based upon our Black-Scholes option fair value calculations, we recognized stock-based compensation expense for employees and non-employees of $— and $428,000 for the periods from January 27, 2014 (inception) to December 31, 2014 and for the year ended December 31, 2015, respectively. As of December 31, 2015, total compensation cost related to unvested employee stock options not yet recognized in our financial statements was approximately $4.7 million, and the weighted average period over which this cost was expected to be recognized was 3.64 years. We expect to continue to grant stock options in the future, and to the extent that we do, our stock-based compensation expense recognized in future periods will likely increase.

The Black-Scholes option pricing model requires the use of subjective and complex assumptions which help us to determine the estimated fair value of stock-based awards, including the expected term and price volatility of the underlying stock. These assumptions include:

- **Volatility:** We used an average historical stock price volatility of comparable public companies within the biotechnology and pharmaceutical industry that were deemed to be representative of future stock price trends as we are not a public company and do not have any trading history for our common stock.

- **Expected Term:** We used the simplified method prescribed in Financial Account Standards Board (FASB) ASC 718, *Compensation—Stock Compensation*, to calculate the expected term of options granted to employees and directors.

- **Risk-free Interest Rate:** We estimated the risk-free interest rate over the expected term of the options based on the constant maturity rate of U.S. Treasury securities with similar maturities as of the date of the grant.

- **Expected Dividends:** We have not paid and do not anticipate paying any dividends in the near future.

The following table presents the weighted-average assumptions used to estimate the fair value options granted:

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| Expected volatility | 97.0% | 83.3% |
| Expected term (in years) | 6.1 | 6.1 |
| Risk-free interest rate | 1.7% | 1.7% |
| Expected dividend yield | 0% | 0% |

In addition to the assumptions used in the Black-Scholes option-pricing model, we also estimate a forfeiture rate to calculate the stock-based compensation for our equity awards. We estimate forfeitures at the time of grant, and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. Thus, we record stock-based compensation expense only for those awards that are expected to vest. To the extent actual forfeitures differ from the estimates, the difference will be recorded as a cumulative adjustment in the period that the estimates are revised.

We expect to continue to use judgment in evaluating the expected volatility, expected terms and forfeiture rates utilized for our stock-based compensation calculations on a prospective basis.

***Fair Value***

Historically, for all periods prior to this offering, the fair values of the shares of common stock underlying our stock-based awards were estimated on each grant date by our board of directors. In order to determine the fair value of our common stock underlying option grants and restricted common stock, our board of directors considered, among other things, valuations of our common stock as of December 1, 2014, June 10, 2015, September 16, 2015, November 9, 2015 and December 31, 2015 in accordance with the guidance provided by the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*.

The Practice Guide identifies various available methods for allocating enterprise value across classes and series of capital stock to determine the estimated fair value of common stock at each

valuation date. In determining a fair value for our common stock, at various times we primarily used the following methods and combinations of methods:

- **Probability-Weighted Expected Return Method.** The probability-weighted expected return method (PWERM) is a scenario-based analysis that estimates value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.

- **Option Pricing Method.** Under the option pricing method (OPM), shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The estimated fair values of the convertible preferred stock and common stock are inferred by analyzing these options.

Given the absence of a public trading market for our common stock, we believe our board of directors exercised reasonable judgment as it considered a number of objective and subjective factors to determine the best estimate of the fair value of our common stock, including our current financial condition, anticipated expenses, the market value of stock or equity interests in similar corporations and other entities engaged in businesses substantially similar to those engaged in by us, the present value of our anticipated future cash flows, valuations of comparable companies, financing prospects, current and potential strategic relationships, competitive developments and related matters, the aggregate liquidation preference of our convertible preferred stock, the price at which our shares of outstanding capital stock have previously been issued, the current market and venture capital financing environment and the lack of marketability of our common stock.

There are significant judgments and estimates inherent in the determination of the estimated fair value of our common stock. If we had made different assumptions, our stock-based compensation expense, net loss and net loss per share could have been significantly different.

The intrinsic value of all outstanding options as of December 31, 2015 was $ million based on an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, of which approximately $ million was related to unvested options.

***Income Tax***

We recognize deferred income taxes for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes. We periodically evaluate the evidence bearing upon whether our deferred tax assets are realizable. Based upon the weight of available evidence, which includes our historical operating performance, reported cumulative net losses since inception and difficulty in accurately forecasting our future results, we maintained a full valuation allowance on the net deferred tax assets as of December 31, 2015 of approximately $5.9 million. We intend to maintain a full valuation allowance on the federal and state deferred tax assets until sufficient positive evidence exists to support reversal of the valuation allowance.

As of December 31, 2015, we had federal net operating loss (NOL) carryforwards of approximately $11.7 million and state NOL carryforwards of approximately $11.7 million available to offset future taxable income. If not utilized, the federal and state NOL carryforwards will begin to expire in various years beginning in 2034.

As of December 31, 2015, we also had $0.3 million of federal and $0.3 million of state research and development tax credit carryforwards available to reduce future income taxes. The federal research and development tax credits will begin to expire in 2035, if not utilized. The state research and development tax credits have no expiration date.

Utilization of NOL carryforwards and credits may be subject to an annual limitation due to the ownership change provisions in the Internal Revenue Code of 1986, as amended (Code), and similar state provisions. An annual limitation may result in the expiration of NOLs and credits before utilization. During the third quarter of 2015, the Company issued a new series of convertible preferred stock that in conjunction with other preferred stock issuances may have caused an ownership change under these provisions of the Code and similar state provisions. As of December 31, 2015, NOLs and credits are not expected to expire unused in the carryforward period as a result of these recent issuances of convertible preferred shares. The Company could experience additional ownership changes in the future, including in connection with this offering, that could impose additional annual limitations.

Our policy is to recognize interest and penalties related to income taxes as a component of income tax expense. No interest and penalties related to income taxes have been recognized in the statements of operations and comprehensive loss.

**Results of Operations**

***Comparison of the periods below as indicated (in thousands)*:**

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 | Change |
|---|---|---|---|
| Operating expenses: | | | |
| Research and development | $ 38 | $ 11,352 | $ 11,314 |
| General and administrative | 123 | 2,418 | 2,295 |
| Total operating expenses | 161 | 13,770 | 13,609 |
| Loss from operations | (161) | (13,770) | (13,609) |
| Change in fair value of convertible preferred stock liability | — | (17,600) | (17,600) |
| Interest income | — | 35 | 35 |
| Net loss | $ (161) | $ (31,335) | $ (31,174) |

*Research and Development Expense*

Research and development expenses for the year ended December 31, 2015 consisted of the following costs by program (specific program costs consist solely of external costs):

| (In thousands) | Year ended December 31, 2015 |
|---|---|
| CPI-444 | $ 4,092 |
| ITK | 539 |
| Anti-CD73 | 315 |
| Unallocated employee and overhead costs | 6,406 |
| Total | $ 11,352 |

CPI-444 costs of $4.1 million primarily consisted of a $1.0 million license payment to Vernalis, $1.7 million in drug purchases and $0.7 million in clinical trial expenses. ITK costs of $0.5 million primarily consisted of the outside synthesis and testing of chemical compounds. Anti-CD73 costs of $0.3 million primarily consisted of outside development costs.

Unallocated costs of $6.4 million primarily consisted of personnel related costs of $3.3 million, lab materials and expensed equipment costs of $1.5 million and facility and related overhead costs of $0.8 million.

*General and Administrative Expense*

General and administrative expense increased $2.3 million during the year ended December 31, 2015 compared to the period from January 27, 2014 (inception) through December 31, 2014. The increase was primarily attributable to an increase of $0.9 million in personnel-related expenses due to an increase in headcount and an increase of $0.9 million in professional services expenses and an increase of $0.2 million in facility related expenses.

*Change in Fair Value of Convertible Preferred Stock Liability*

In connection with the issuance of shares of our Series A convertible preferred stock in November 2014, we granted a second tranche option to the Series A investors to purchase 4,460,715 shares of our Series A convertible preferred stock upon the achievement of certain milestones. At initial recognition, we recorded the option as a liability on our balance sheet at its estimated fair value of $2.6 million. The fair value of the convertible preferred stock liability at December 31, 2014 was $2.6 million, resulting in no gain or loss on remeasurement for the period from January 27, 2014 (inception) to December 31, 2014. In June 2015, we achieved the relevant milestones, and the investors exercised their right to purchase 4,460,715 shares of Series A convertible preferred stock for net proceeds of $16.7 million. Immediately prior to the closing of this tranche, we remeasured the convertible preferred stock liability to its then fair value and recorded a loss from remeasurement of $17.6 million in our statement of operations to bring the convertible preferred stock liability to its then fair value of $20.2 million, which was reclassified to convertible preferred stock upon the closing of the second tranche.

***Result of Operations for the period from January 27, 2014 (inception) to December 31, 2014:***

We were incorporated on January 27, 2014 and began operations in November 2014 with the closing of our Series A convertible preferred stock financing. We incurred a loss of $0.2 million for the period from January 27, 2014 to December 31, 2014. This loss is primarily comprised of general and administrative expenses related to personnel-related costs and professional services.

**Liquidity and Capital Expenditures; Plan of Operation**

As of December 31, 2015, we had cash, cash equivalents and marketable securities of $94.4 million. Since our inception and through December 31, 2015, we have financed our operations primarily through private placements of convertible preferred stock.

We use our cash primarily to fund operating expenses, mostly research and development expenditures. We plan to increase our research and development expenses for the foreseeable future as we continue the preclinical and clinical development of our product candidates. At this time, due to the inherently unpredictable nature of preclinical and clinical development and given the early stage of our product candidates, we cannot predict with certainty the costs we will incur and the timelines that will be required to complete development, obtain marketing approval and commercialize our current product candidates or any future product candidates. For the same reasons, we are also unable to predict when, if ever, we will generate revenue from product sales or whether, or when, if ever, we may achieve profitability. Clinical and preclinical development timelines, the probability of success and development costs may differ materially from expectations. In addition, we cannot forecast which product candidates may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

Since our inception we have incurred significant losses and negative cash flows from operations. We have an accumulated deficit of $31.5 million, which includes a $17.6 million non-cash charge associated with the change in fair value of a preferred stock call option liability, through December 31,

2015. We expect to incur substantial additional losses in the future as we expand our research and development activities. Based on our research and development plans, we expect that our existing cash, cash equivalent and marketable securities, excluding the proceeds of this offering, will be sufficient to enable us to fund research and development of our product candidates under development, including CPI-444, through at least the next twelve months. However, we have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we expect.

The timing and amount of our operating expenditures will depend largely on:

- the initiation, progress, timing, costs and results of clinical trials for CPI-444;
- the timing, progress, costs and results of preclinical and clinical development activities for our other product candidates;
- the number and scope of preclinical and clinical programs we decide to pursue;
- the costs involved in prosecuting, maintaining and enforcing patent and other intellectual property rights;
- the cost and timing of regulatory approvals; and
- our efforts to enhance operational systems and hire additional personnel, including personnel to support development of our product candidates and satisfy our obligations as a public company.

Until such time, if ever, as we can generate substantial revenue from product sales, we expect to fund our operations and capital funding needs through equity and/or debt financings. We may also enter into additional collaboration arrangements or selectively partner for clinical development and commercialization. The sale of additional equity would result in additional dilution to our stockholders. The incurrence of debt financing would result in debt service obligations and the governing documents would likely include operating and financing covenants that would restrict our operations. If we are not able to secure adequate additional funding, we may be forced to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible and/or suspend or curtail planned programs. Any of these actions could have a material effect on our business, financial condition and results of operations.

**Cash Flows**

The following table summarizes our cash flows for the periods indicated (in thousands):

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| Net cash provided by (used in): | | |
| Operating activities | $ (96) | $ (11,328) |
| Investing activities | — | (92,032) |
| Financing activities | 12,613 | 94,948 |
| Net increase (decrease) in cash and cash equivalents | $ 12,517 | $ (8,412) |

***Cash Flows from Operating Activities***

During the year ended December 31, 2015, cash used in operating activities was $11.3 million, which consisted of a net loss of $31.3 million, adjusted by non-cash charges of $18.2 million and a net change of $1.8 million in our net operating assets. The non-cash charges are primarily associated with remeasurement of our convertible preferred stock liability to fair value of $17.6 million. The change in

our net operating assets and liabilities was primarily due to an increase of $1.3 million of prepaid and other current assets, including prepaid drug purchases of $0.7 million and receivables from our landlord of $0.3 million in connection with improvements to our facility, offset by increases in short-term liabilities of $2.5 million and increased long-term liabilities of $0.6 million, primarily in connection with deferred rent.

During the period from January 27, 2014 (inception) to December 31, 2014, cash used in operating activities was $0.1 million, which consisted of a net loss of $0.2 million, offset by an increase in accounts payable and accrued liabilities of $0.1 million.

***Cash Flows from Investing Activities***

Cash used in investing activities during the year ended December 31, 2015 was $92.0 million, which consisted of $1.7 million of capital expenditures to purchase property and equipment and $104.4 million of purchases of short-term marketable securities, offset by $14.1 million in proceeds from the maturity of marketable securities.

***Cash Flows from Financing Activities***

During the year ended December 31, 2015, cash provided by financing activities was $94.9 million, primarily consisting of net proceeds from the issuances of convertible preferred stock.

During the period from January 27, 2014 (inception) to December 31, 2014, cash provided by financing activities was $12.6 million, primarily consisting of net proceeds from the issuance of convertible preferred stock.

**Off-Balance Sheet Arrangements**

We have not entered into any off-balance sheet arrangements and do not have any holdings in variable interest entities.

**Contractual Obligations**

We lease our facilities under a non-cancelable operating lease that expires in 2021.

As of December 31, 2015, future minimum lease payments under the facility lease were as follows (in thousands):

| | |
|---|---|
| 2016 | $ 726 |
| 2017 | 821 |
| 2018 | 848 |
| 2019 | 873 |
| 2020 | 900 |
| Thereafter | 113 |
| Total | $ 4,281 |

Pursuant to our license agreements with each of Vernalis and Scripps, we have obligations to make future milestone and royalty payments to these parties. However, because these amounts are contingent and not fixed or determinable, they have not been included on our balance sheet or in the table above.

**JOBS Act Accounting Election**

We are an emerging growth company, as defined in the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the

enactment of the JOBS Act until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. We also intend to rely on other exemptions provided by the JOBS Act, including, without limitation, providing an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of this offering, (b) in which we have total annual gross revenue of at least $1.0 billion or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700.0 million as of the prior June 30th, and (2) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period.

**Quantitative and Qualitative Disclosures about Market Risk**

We are exposed to market risk related to changes in interest rates. We had cash and cash equivalents of $12.5 million as of December 31, 2014 and cash, cash equivalents and marketable securities of $94.4 million as of December 31, 2015, which consisted of bank deposits and U.S. Treasury securities. Such interest-earning instruments carry a degree of interest rate risk; however, historical fluctuations of interest income have not been significant. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 10% increase in interest rates would not have a material effect on the fair market value of our portfolio.

**Recent Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (FASB) issued ASU 2014-09, *Revenue from Contracts with Customers*, which required an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. ASU 2014-09 will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. The new standard is effective January 1, 2018 for public companies. Early application is permitted as of January 1, 2017. The standard permits the use of either the retrospective or cumulative effect transition method. We do not believe adopting ASU 2014-09 will have a material impact on our financial statements as we are not yet generating revenues.

In August 2014, the FASB issued Accounting Standards Update No. 2014-15, *Disclosure of Uncertainties About an Entity's Ability to Continue as a Going Concern*. This standard update provides guidance around management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. The new guidance is effective for all annual and interim periods ending after December 15, 2016. We do not believe that adopting ASU 2014-15 will have a material impact on our financial statements.

In November 2015, the FASB issued Accounting Standards Update No 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*. This standard amends the accounting for income taxes and requires all deferred tax assets and liabilities to be classified as non-current on the balance sheet. The new standard is effective for reporting periods beginning after December 15, 2016, with early adoption permitted. The standard may be adopted either prospectively or retrospectively. We are currently evaluating the impact of ASU 2015-17.

# BUSINESS

## Overview

We are a clinical stage biopharmaceutical company focused on the development and commercialization of novel immuno-oncology therapies that are designed to harness the immune system to attack cancer cells. Since we began operations in November 2014, we have built a pipeline of four immuno-oncology programs, three of which focus on the adenosine-cancer axis to modulate an immune response. Our lead product candidate, CPI-444, is an oral, small molecule antagonist of the A2A receptor for adenosine, an immune checkpoint. In January 2016, we began enrolling patients in a large expansion cohort trial for CPI-444. This Phase 1/1b clinical trial is designed to examine safety, tolerability, biomarkers and preliminary efficacy of CPI-444 in several solid tumor types, both as a single agent and in combination with Genentech, Inc.'s investigational cancer immunotherapy, atezolizumab, a fully humanized investigational monoclonal antibody targeting PDL-1. We have also chosen a lead development candidate for our second program, an anti-CD73 monoclonal antibody that inhibits the production of adenosine, and plan to select development candidates for our other two programs in 2016. We believe the breadth and status of our pipeline demonstrates our management team's expertise in understanding and developing immuno-oncology assets as well as in identifying product candidates that can be in-licensed and further developed internally to treat many types of cancer. We hold worldwide rights to all of our product candidates.

Immuno-oncology therapies that stimulate or enhance immune responses to tumors are a new and emerging approach with several potential benefits over existing therapies. First, the immune system exhibits immunologic diversity and selectivity, which enables it to respond to a large number of potential targets. Second, once triggered, the immune response can be amplified, offering the potential to enhance the efficacy of treatment. Third, once activated, the immune system possesses immunologic memory, potentially providing for a durable and long-lasting response. Some of the most successful types of immuno-oncology therapies are immune checkpoint inhibitors. Immune checkpoints are signaling molecules produced by or expressed on immune cells that act to shut down or block an immune response. In a healthy person, these checkpoints function to limit an immune response to ensure that the immune system does not overreact, which could lead to excessive inflammation and tissue damage, as occurs in patients with autoimmune diseases or allergies. Tumor cells have evolved to activate these checkpoints to shield the tumor from immune response attacks, but studies have shown that immune checkpoint inhibitors can counter these tumor-protective measures and unleash the immune system's cancer-destroying properties.

The FDA recently approved agents that target specific immune checkpoints, including antibodies against the cytotoxic T-lymphocyte-associated antigen-4 (CTLA-4) and programmed death 1 (PD-1) receptors, and there are ongoing studies of agents that target programmed death receptor-ligand 1 (PDL-1). These antibodies represent the first immune checkpoint inhibitors to demonstrate effectiveness in the clinic, and preclinical data suggest that there are many other immune checkpoints or targets that may be modulated to promote the activation of a patient's anti-tumor immune system.

Since we began operations in November 2014, we have built a pipeline of four immuno-oncology programs. Three of our programs are aimed at disabling cancer's ability to subvert immune attack by inhibiting adenosine in the tumor microenvironment or by blocking its production by tumors. Adenosine activates an immune checkpoint, the adenosine A2A receptor, that is used by the body to limit inflammation and immune responses. Adenosine accomplishes this by interacting with the A2A and A2B receptors expressed on several cells of the immune system; including T-cells, natural killer (NK) cells, macrophages, dendritic cells and myeloid derived supressor cells, as well as other cells. We are developing small molecules that selectively inhibit the binding of adenosine to either A2A receptors or to A2B receptors. We also are developing injectable monoclonal antibodies that block the production of adenosine by tumors by inhibiting the cell surface enzyme CD73. Our fourth program is

aimed at developing product candidates that regulate T-cell activation and differentiation by inhibiting interleukin-2 inducible kinase (ITK). Several of our product candidates are orally administered small molecules which may provide for easier administration and facilitate their use in combination with other anti-cancer agents. Our oral product candidates are designed to be rapidly eliminated from the body, which, in turn, could reduce the potential for excessive toxicity when used in combination with other antibody-based checkpoint inhibitors.

Our immuno-oncology product candidate pipeline includes the following:

***CPI-444 Adenosine A2A Receptor Antagonist***. In February 2015, we in-licensed patent rights and know-how related to CPI-444 and related molecules from Vernalis (R&D) Limited (Vernalis), where it was under development for treatment of Parkinson's disease and other neurologic diseases. Vernalis and its corporate partner conducted two Phase 1 clinical trials in healthy volunteers and one Phase 1b trial in patients with attention deficit and hyperactivity disorder (ADHD), with an aggregate of approximately 75 healthy volunteers and patients dosed. These trials provided early indications of a favorable safety profile and assessed pharmacokinetics, oral bioavailability and receptor occupancy for CPI-444. We conducted further testing in *in vitro* and *in vivo* models to evaluate CPI-444's immune-enhancing and anti-tumor properties. In these studies, orally administered CPI-444 inhibited tumor growth in multiple mouse models of cancer as a single agent, in combination with anti-PD-1 agents and in combination with anti-PDL-1 agents.

In October 2015, we filed an investigational new drug (IND) application for CPI-444 for treatment of several solid tumor types. In January 2016, we began enrolling patients in a large expansion cohort for CPI-444. This Phase 1/1b clinical trial is designed to examine safety, tolerability, biomarkers and preliminary efficacy of CPI-444, both as a single agent and in combination with Genentech's atezolizumab (MPDL3280A), and will include patients with different types of solid tumors enrolled in disease-specific cohorts.

The issued U.S. patents that we in-licensed from Vernalis are directed to the composition of matter of CPI-444 and its method of use for treating disorders treatable by purine receptor blocking. These patents are expected to expire in the United States between January 2022 and July 2029, excluding any patent term extension that may be available. We hold an exclusive, worldwide license under these patent rights and related know-how, including a limited right to grant sublicenses, for all fields of use, to develop, manufacture and commercialize products containing certain adenosine receptor antagonists, including CPI-444.

***Anti-CD73 Adenosine Production Inhibitor***. In December 2014, we in-licensed from The Scripps Research Institute (Scripps) a mouse hybridoma clone expressing an anti-human CD73 antibody, from which we have developed a humanized anti-CD73 monoclonal antibody. We have further modified this antibody to improve binding and inhibition of catalytic activity. CD73 is often found on lymphocytes, tumors and other tissues and is believed to play an important role in tumor immune suppression by catalyzing the production of extracellular adenosine. In preclinical *in vitro* studies, our humanized monoclonal anti-CD73 antibody has been shown to inhibit the catalytic activity of CD73, resulting in the blocking of extracellular adenosine production by tumor cells, which we believe could stimulate or enhance immune response to tumors. We are initiating IND-enabling studies for the development of this antibody for potential clinical trials in patients with advanced cancer and plan to complete these studies in 2017. We hold a non-exclusive, world-wide license for all fields of use under Scripps' rights in a hybridoma clone expressing an anti-CD73 antibody, and to progeny, mutants or unmodified derivatives of such hybridoma and any antibodies expressed by such hybridoma.

***Adenosine A2B Receptor Antagonist***. We have in-licensed several selective and potent adenosine A2B receptor antagonists from Vernalis. In addition, we are synthesizing and have identified other A2B receptor antagonists from our internal research program. Adenosine A2B receptors have recently

been found to play an important role in the immune response to tumors. Similar to adenosine A2A receptors, adenosine binds to adenosine A2B receptors, which leads to immunosuppression. We intend to further develop our A2B agents to improve potency, selectivity, pharmacokinetic behavior and immune enhancing properties. We expect to conduct preclinical studies similar to those we have conducted for CPI-444 in order to select a development candidate in 2016. Upon selection, we intend to conduct further IND-enabling studies and potential Phase 1 clinical trials. We hold an exclusive, worldwide license under certain Vernalis patent rights and know-how, including a limited right to grant sublicenses, for all fields of use to develop, manufacture and commercialize products containing such compounds that have been developed using the intellectual property rights that we in-license from Vernalis.

***ITK Inhibitor***. We are currently developing a series of selective, covalent inhibitors of ITK and are evaluating them in preclinical studies for potency, safety and efficacy. ITK, an enzyme that functions in T-cell signaling and differentiation, is expressed predominantly in T-cells, which are lymphocytes that play a vital role in immune response. One of the key survival mechanisms of tumors is believed to be the reprogramming of T-cells to create an inflammatory environment that inhibits anti-tumor immune response and favors tumor growth. We believe highly selective inhibitors of this enzyme will facilitate induction of T-cell anti-tumor immunity and also may be useful in the treatment of T-cell lymphomas. We plan to select a lead development candidate under this program in 2016 and, following selection, advance the candidate into clinical trials in patients with T-cell lymphoma and in patients with solid tumors. We hold exclusive worldwide rights for all indications.

**Our Company Origins, Team and Investors**

Since we began operations in November 2014, our focus has been on improving and expanding upon the recent success with immune checkpoint inhibitors and developing agents to new targets in the evolving immuno-oncology field. Our founders and management team consist of industry veterans who played significant roles in the discovery and development of successful oncology and immunology antibodies and drugs, including rituximab and ibrutinib. Our co-founders include our Chief Executive Officer, Richard A. Miller, M.D., our Chief Financial Officer, Leiv Lea, and our Executive Vice President, Discovery Research, Joseph Buggy, Ph.D. Dr. Miller previously co-founded IDEC (which merged to form Biogen IDEC, now Biogen), where he led research efforts on lymphoma, culminating in the development of rituximab. Dr. Miller, an oncologist, also co-founded and was the initial CEO of Pharmacyclics, Inc. where he and colleagues in-licensed ibrutinib and, together with Dr. Buggy, led its development. Our Chief Financial Officer, Leiv Lea, has previously led finance teams for emerging biotechnology companies, including Pharmacyclics. Mr. Lea has extensive commercial and operating experience in addition to having completed a number of financial and strategic transactions. In addition, we have recruited industry veterans and experts to join our management team, and established collaborations with leading biotechnology companies, including Genentech, and collaborative relationships with research institutions, including The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins. With our management team's expertise in developing both small molecule and antibody-based oncology treatments, we believe we are well positioned to identify and develop novel therapeutic agents that have diverse but complementary mechanisms of action, allowing for their potential integration into immuno-oncology treatment regimens for a broad variety of cancers.

We have attracted initial funding from many leading healthcare investors and funds, including Adams Street Partners; BlackRock; Cormorant Asset Management; Cowen Private Investments; funds affiliated with Fidelity Management and Research Company; Jennison Associates (on behalf of certain clients); Novo A/S; OrbiMed Advisors; Roche Venture Fund; Rock Springs Capital Management; Sphera Funds Management; funds and accounts managed by T. Rowe Price; and venBio Select Advisor.

**Our Strategy**

Our goal is to become a leader in the field of immuno-oncology treatments for multiple cancer indications. Specific elements of our strategy are:

- ***Leverage our expertise in immunology and oncology to identify, develop and commercialize new product candidates***. We have established development expertise and capabilities in synthetic chemistry, molecular biology, immunology and clinical oncology, which we believe will help us advance product candidates in the immuno-oncology field. We plan to become a leader in the development and commercialization of product candidates targeting adenosine in what is known as the adenosine-cancer axis, a key mechanism used by tumors to evade immune attack. Three of our product programs, each of which was in-licensed, are focused on the development of product candidates targeting this axis, including an A2A receptor antagonist, an anti-CD73 antibody and an A2B receptor antagonist. We intend to seek opportunities to in-license additional product candidates with a focus on the potential to address unmet needs within our areas of expertise.

- ***Utilize existing preclinical and clinical data to advance our lead product candidate into clinical trials for oncology***. Our lead candidate, CPI-444, was previously studied in Phase 1 and 1b clinical trials in healthy volunteers and patients with ADHD, providing information on safety, pharmacokinetics and dosing in patients. In our preclinical studies, CPI-444 has demonstrated potent and selective inhibition of the adenosine A2A receptor. We believe the existing clinical and preclinical data for CPI-444 will significantly reduce the development time for this compound. Our IND in oncology was filed in October 2015 and we began enrolling patients in a Phase 1/1b clinical trial in January 2016. This trial utilizes a successive expansion cohort design to enroll patients with different types of cancer into disease-specific cohorts.

- ***Advance product candidates for use alone or in combination with other oncology treatments***. We intend to focus on product candidates with single agent activity, which are also designed to be combined synergistically with other cancer therapies. We believe that many immuno-oncology therapeutic regimens will likely be built on a backbone of anti-PD-1/PDL-1 blockade, and our initial Phase 1/1b clinical trial includes the administration of CPI-444 in combination with an investigational anti-PDL-1 agent. Our product candidates are designed to target the patient's immune system rather than a specific type of malignant cell, and, if approved, could be suitable for combination with current and future immunotherapy agents as well as traditional cancer treatments, including chemotherapy, biologic therapy, targeted therapy and radiation therapy.

- ***Identify biomarkers to select patients and monitor treatment with our product candidates***. Predicting optimal drug responses in patients requires the identification and validation of predictive biomarkers. We believe that developing the ability to identify patient subsets most likely to respond to our product candidates will increase the clinical benefit to patients and improve the probability of success of our clinical trials. Our Phase 1/1b clinical trial of CPI-444 will examine numerous biomarkers to identify those that may correlate with clinical efficacy and increase our likelihood of success.

- ***Pursue collaborative relationships, partnerships and in-licensing opportunities to help advance and expand our product candidate portfolio***. In addition to developing product candidates through preclinical and clinical stages of development, we plan to identify and pursue strategic collaborative relationships, partnerships and in-licensing opportunities, which could enhance the development of our programs and product candidates. As evidenced by our collaboration with Genentech for CPI-444, we intend to build upon our relationships with leading biotechnology companies and research institutions to identify new opportunities to position us at the forefront of immuno-oncology.

**Cancer Treatment and Immuno-oncology**

Cancer is the second leading cause of mortality in the United States, accounting for nearly one in every four deaths. Approximately 40% of Americans will develop some form of cancer, and, according to the American Cancer Society, there will be 1.7 million new cases of cancer and 589,000 deaths due to cancer in the United States in 2015. Cancer treatment has traditionally included chemotherapy, biologic therapy, radiation, surgery or a combination of these approaches. Treatment with targeted agents is becoming more widely used. These agents often react with specifically mutated proteins in cancer. Many different mutations are now known to occur frequently in cancer and, in many cases, are responsible for driving tumor progression.

Immuno-oncology is a new and emerging approach to treating cancer that is based on stimulating or enhancing an immune response to the tumor. This approach is based on the findings that the mutations occurring in cancer cells may be immunogenic and capable of eliciting an immune response against the tumor. Immuno-oncology therapies offer several potential advantages over existing cancer therapies due to the intrinsic features of the immune system. For instance, the immune system exhibits immunologic diversity and selectivity, which enables it to respond to a large number of potential targets. In addition, once triggered, the immune response can be amplified, offering the potential to enhance the efficacy of treatment. Furthermore, once activated, the immune system possesses immunologic memory, potentially providing for a durable and long-lasting response. Finally, because immunotherapy mechanisms are indifferent to tissue origin and are instead focused on immunogenic mutations, which are often expressed across tumor types, immunotherapy may be widely applicable to many types of cancer and not limited to a particular tumor type. This allows for these agents to be potentially active in a multitude of cancer histologies. However, while the modulation of the immune system to eradicate cancer has been a long-standing goal in cancer therapy, historically it has not been possible to consistently produce clinically meaningful anti-tumor immune responses despite the immunogenicity of tumors.

Recently, the reasons for the previous failures of immunologic approaches to cancer treatment have become better understood. Tumors evolve sophisticated survival mechanisms, allowing them to avoid immune-mediated destruction as occurs with pathogens, such as bacteria or viruses. These mechanisms include the activation of immune checkpoints on cells of the immune system, which act to block immune responses, and the reprogramming of T-cells to create an inflammatory environment that inhibits immune response and favors tumor growth. Immune checkpoints are signaling molecules produced by or expressed on immune cells that shut down or block an immune response. In a healthy person, these checkpoints function to limit an immune response to ensure that the immune system does not overreact, which could lead to excessive inflammation and tissue damage, as occurs in patients with autoimmune diseases or allergies. Tumors have evolved to activate these checkpoints to shield them from immune response attacks. However, studies have shown that these mechanisms can be countered using immune checkpoint inhibitors, which can unleash the immune system's cancer-destroying properties. The newfound understanding of immune checkpoints has led to a revolution in cancer treatment and the growing field of immuno-oncology. Specific immune checkpoint inhibitors, including antibodies against CTLA-4, PD-1 receptor or its ligand PDL-1 have produced impressive results in the clinic in a range of cancers, leading to FDA approvals for ipilimumab (anti-CTLA-4), nivolumab (anti-PD-1) and pembrolizumab (anti-PD-1).

Despite their recent success, current checkpoint inhibitors suffer from several limitations. Only a minority of patients treated with checkpoint inhibitors exhibit robust anti-tumor responses, and most responses are partial and temporary. Many patients initially respond, but then relapse due to the emergence of resistant pathways, which may occur due to tumor cell expression of other checkpoints. Some patients experience unusual toxicities related to an excessive immune response leading to pneumonitis, hepatitis, colitis and other immune related disorders. These limitations have motivated a

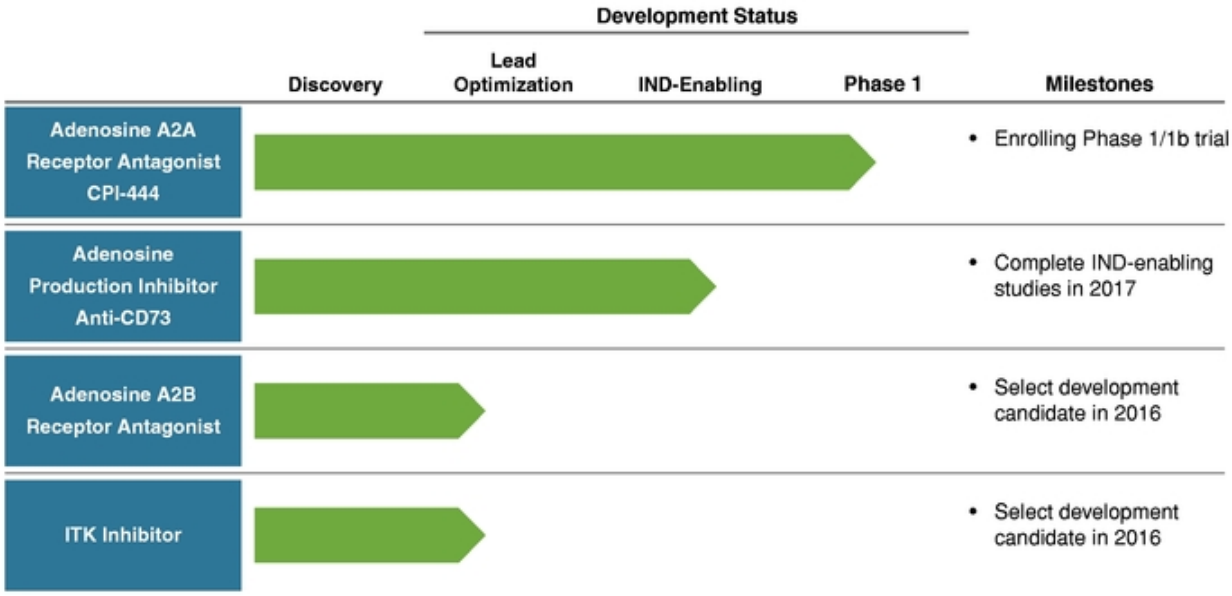
search for other immune checkpoint targets and the use of combinations of various checkpoint inhibitors in an attempt to improve efficacy, reduce resistance and limit or reduce toxicity.

The recent success of checkpoint inhibitors has stimulated increased interest in utilizing various immunotherapy approaches to treating cancer, including vaccines, cellular therapies and other immunomodulatory agents. These approaches include modulating the function of various immune cells. For example, ibrutinib, an FDA approved BTK inhibitor, is currently being evaluated as an immunomodulatory agent in solid tumors because it is believed to also affect the differentiation of T-cells.

**Product Pipeline**

We are developing novel checkpoint inhibitors and immuno-oncology therapies that we believe may overcome some of the limitations of current immuno-oncology therapies. Three of our programs are aimed at disabling cancer's ability to subvert immune attack by inhibiting adenosine in the tumor microenvironment or by blocking its production by tumors. Our fourth program is aimed at developing product candidates that regulate T-cell activation and differentiation by inhibiting ITK. We intend to commercialize any approved product candidates primarily in the United States and Europe for any oncology indications our product candidates are approved for. We expect cancer patients or their healthcare providers to be our primary customers for any approved product candidates and expect that our commercial sales of such product candidates will depend on the availability of adequate coverage and reimbursement from government health administration authorities, private health insurers and other third-party payors.

The following chart summarizes key information regarding our current product candidate pipeline and expected milestones:



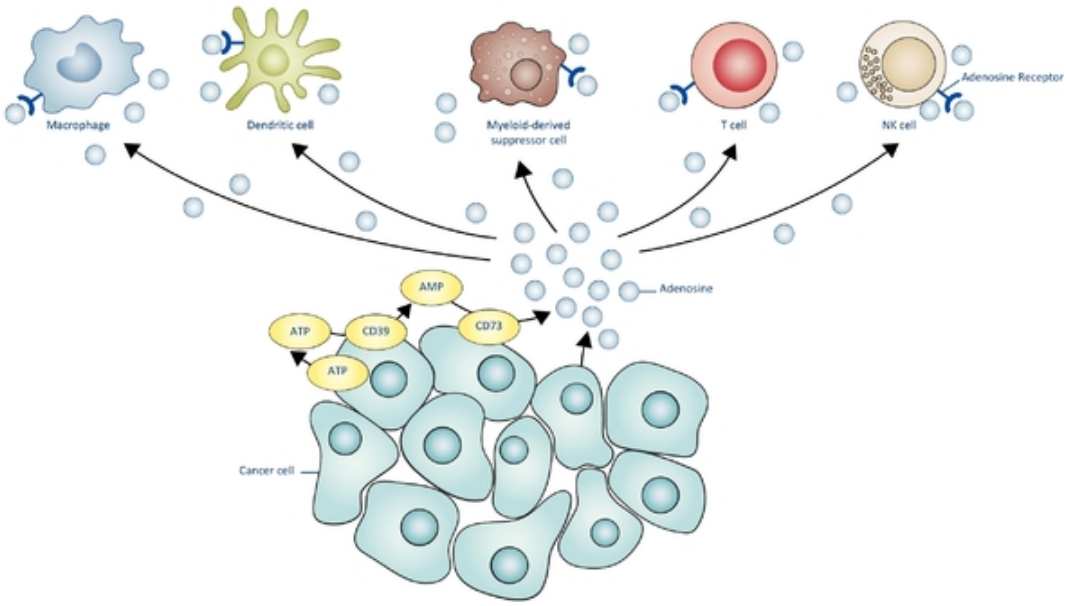
**Adenosine Inhibitors**

***Adenosine-Cancer Axis and Anti-tumor Immune Response***

Adenosine activates an immune checkpoint, the adenosine A2A receptor, that is used by the body to limit inflammation and immune responses. It is produced during acute, inflammatory processes in two steps. The first step is the catalytic conversion of adenosine triphosphate (ATP) to adenosine monophosphate (AMP) by the enzyme CD39. The second and rate-limiting step is the conversion of AMP to adenosine by CD73, an enzyme expressed on the surface of several types of immune cells, tumor cells and cells of certain other tissues. Under normal circumstances, the level of adenosine is increased to protect a person from over-injury in response to such stimuli as inflammation, infection or ischemia. However, as a self-protective maneuver, many tumor types actively sustain increased levels of extracellular adenosine by production through CD73 or by direct secretion of adenosine. These increased levels of adenosine interact with the A2A and A2B receptors expressed on several cells of the immune system, including T-cells, NK cells, macrophages, dendritic cells and myeloid derived suppressor cells, as well as other cells, which has the effect of dampening the immune response to the tumors, a system known as the adenosine-cancer axis.

The following figure provides an overview of adenosine production by tumors and its effects on the immune system:

**Adenosine-Cancer Axis**
**Immunosuppressive Effects of Adenosine Mediated through Multiple Pathways**




The immune system is composed of several cellular components that mediate a variety of functions in response to tumor cells and foreign pathogens. For instance, macrophages and dendritic cells function primarily to process foreign antigens and tumor antigens. These cells then present such antigens to other cells, such as T-cells. The presentation of these antigens to T-cells stimulates cytotoxic T-cells (also known as killer T-cells) to destroy the tumor cells or foreign pathogens. Other cells, such as NK cells, are capable of destroying tumor cells without the need for antigen presentation from macrophages or dendritic cells. In addition, certain immune cells, such as myeloid derived suppressor cells and T regulatory cells, function to suppress or dampen immune responses. The various cellular components of the immune system work in a coordinated manner to recognize and destroy pathogens and tumor cells.

Adenosine hinders the immune response to tumors by both blocking the activation and effectiveness of immune cells capable of destroying tumor cells, and by increasing the number of immune cells that act to suppress immune cells from responding to the tumor. For instance, adenosine reduces T-cell and NK cell production of cytokines, such as interleukin-2 (IL-2) and gamma interferon (IFNg), which results in the blockade or reduction in the ability of such cells to destroy tumor cells. Adenosine also leads to activation and proliferation of T regulatory cells, which function to suppress or dampen immune responses. In addition, adenosine causes dendritic cells to both decrease the rate at which they present antigens to T-cells, thereby inhibiting the ability of T-cells to destroy tumor cells, and decrease their production of co-stimulatory cytokines, which also has the effect of suppressing or dampening the immune response. Macrophages exposed to adenosine will similarly decrease their function, which results in the suppression of immune activity. Finally, adenosine stimulates and increases the number of myeloid derived suppressor cells in the tumor microenvironment, which suppresses immune responses to the tumor. As tumor cells evolve and form cancerous growths, they utilize these processes to evade immune attack and promote their survival. Many of the effects of adenosine on the immune system are mediated through binding to A2A receptors present on several immune cells. Much less is known about A2B receptors, but they have recently been found on certain immune cells, such as macrophages and myeloid derived suppressor cells, and adenosine binding to A2B receptors also appears to play a role in tumor induced immune suppression.

Cancer cells also appear to directly utilize adenosine to promote their own growth. Many solid tumors upregulate CD73 for increased adenosine production. In some cases, it appears adenosine can stimulate growth in tumors by increasing a tumor's blood supply.

A significant body of data indicates that targeting the adenosine-cancer axis through the A2A receptor can promote anti-tumor immune responses leading to tumor regression. Consistent with studies of the inhibition of the A2A receptor, A2A receptor gene knockout mice, which completely lack expression of the A2A receptor, exhibit improved anti-tumor immunity. In addition, several preclinical tumor model studies have shown that treatment with A2A receptor inhibitors leads to tumor regression that is enhanced when administered in combination with various other checkpoint inhibitors, such as anti-PD-1 therapies and anti-CTLA-4 therapies.

***Lead Product Candidate: CPI-444, an A2A selective, orally administered antagonist of the adenosine A2A receptor***

*Overview*

Our lead product candidate, CPI-444, is a selective oral adenosine A2A receptor antagonist that we licensed from Vernalis in February 2015. This molecule was under development for treatment of Parkinson's and other neurologic diseases because expression of A2A receptors was shown in a region of the brain known as the substantia nigra, an area of the brain that produces dopamine. Vernalis and its corporate partner, Biogen IDEC, discontinued development of the drug after others had failed to show efficacy in clinical trials in Parkinson's disease with other A2A antagonists. Although those studies failed to demonstrate efficacy in Parkinson's disease, they did show that A2A receptor antagonists were relatively safe and well-tolerated. Three human clinical trials involving approximately 75 healthy volunteers and patients with ADHD were conducted previously with CPI-444 by Vernalis and their corporate partner, of whom 43 received single doses and 54 received once-daily or twice-daily doses for up to 14 days. One of these, a randomized, Phase 1b, double-blind, cross-over, placebo controlled trial in 28 patients with ADHD, was conducted in the United States from 2013 to 2014 under an IND. At the time, little was known about the A2A receptor and the potential effects of adenosine on the immune system, and these studies did not attempt to measure effects of treatment on immune cells or on immune function.

Since licensing CPI-444, we have conducted extensive laboratory studies *in vitro* and *in vivo* in animal models to evaluate CPI-444's immune-enhancing and anti-tumor properties. In these studies, orally administered CPI-444 inhibited tumor growth in multiple mouse models of cancer as a single agent, in combination with anti-PD-1 and in combination with anti-PDL-1. We have also shown *in vitro* that CPI-444 binds potently and selectively to human activated T-cells and blocks adenosine mediated immunosuppression by restoring T-cell function. In addition, we have shown that there is anti-tumor activity in mice for a significant time following oral administration, which appears to be mediated through a long-lasting memory immune response. Furthermore, we have shown in animal models that the treatment is well tolerated. Our IND in oncology was filed in October 2015, and we began enrolling patients in a Phase 1/1b clinical trial in January 2016.

*Human Safety and Pharmacokinetic Data for CPI-444*

Prior to licensing CPI-444 from Vernalis, Vernalis and its corporate partner conducted two Phase 1 clinical trials in healthy volunteers and one Phase 1b trial in patients with ADHD, with oral doses ranging from 30 mg/day to 300 mg/day. Two studies were completed in healthy human male volunteers, the first of which was a single ascending dose or multiple dose study with 41 healthy volunteers. Of these 41 subjects, 21 were dosed in both the single ascending dose and multiple dose portions of the study. The second study was a receptor occupancy study performed in six human subjects using PET imaging to determine receptor occupancy. The third study was a randomized, double blind, placebo controlled, cross-over Phase 1b trial in 28 patients with ADHD, which evaluated doses up to 200 mg/day. The results of these studies were as follows:

- *Safety and tolerability*: In studies involving healthy volunteers, there was no pattern in the incidence, severity, or relationship of adverse events to CPI-444 dose level. The main toxicity exhibited was gastro-intestinal disorders (abdominal pain, nausea) due to gastric irritation; however, these findings were also observed in the placebo group. No differences in gastric endoscopy were seen between treatment and placebo groups. No dose limiting toxicities were observed and no subject experienced a serious adverse event considered by the investigator to be related to CPI-444. There were no treatment-associated changes seen for any routine laboratory safety tests. A minimal and transient increase in blood pressure that may have been dose-related was observed on day one, but was not detected by day 14 of continuous daily dosing. No clinically significant cardiac abnormalities on telemetry or electrocardiogram recordings were observed. There were no clinically significant changes from baseline in physical examination findings and there were no treatment-emergent clinically significant findings. Based on these studies, we believe that administration of CPI-444 was not associated with any clear evidence of toxicity.

- *Human pharmacokinetics*: CPI-444 was absorbed promptly following oral administration (lag time of less than 0.5 hours) with maximum plasma concentrations ($C_{max}$) observed within four hours of dosing ($t_{max}$). The plasma half-life ($t_{1/2}$) of CPI-444 was determined to be approximately 10 hours after 14 days of dosing. Preliminary data indicate that the effect of food on bioavailability of CPI-444 is negligible, indicating that the drug can be given to fasting or fed patients.

- *Receptor occupancy in human brain*: In a receptor occupancy study conducted by Vernalis during its development of CPI-444 for Parkinson's disease, CPI-444 was shown to bind to brain A2A receptor in a dose-dependent manner following oral administration. CPI-444 appeared to display a direct relationship between plasma concentration and brain A2A receptor occupancy, with 50% of the receptor occupied at a concentration of 320 ng/mL. Approximately 15% of drug crosses the blood brain barrier in studies conducted in non-human primates. Trough level plasma concentrations greater than 960 ng/mL of CPI-444 are, therefore, calculated to lead to greater than 90% A2A receptor occupancy in peripheral tissues. These studies indicate that at the

lowest plasma levels of CPI-444 achieved following 100 mg given twice per day, there would be an expected 90% or higher occupancy of the peripheral A2A receptors.

**Human Pharmacokinetics of CPI-444**

| | 200 mg Once Daily Oral | | 100 mg Twice Daily Oral | |
|---|---|---|---|---|
| | Day 1 | Day 14 | Day 1 | Day 14 |
| $C_{max}$ (µg/mL) | 4.29 | 5.59 | 3.54 | 4.06 |
| $T_{max}$ (h) | 1.78 | 3.0 | 3.00 | 2.00 |
| $C_{min}$ (µg/mL) | Not applicable | 0.22 | Not applicable | 1.12 |
| $t_{1/2}$ (h) | Not calculated | 10.2 | 3.00 | 10.6 |

*Our Preclinical Studies of CPI-444*

Following our licensing of CPI-444 from Vernalis in February 2015, we conducted preclinical studies of CPI-444 to evaluate its potency and selectivity in *in vitro* studies and its efficacy in both *in vitro* and *in vivo* studies. The results of these studies are described below.

Potency and Selectivity in *In Vitro* Studies

In order for an A2A receptor antagonist to be a suitable product candidate, it would need to bind to the A2A receptor very strongly, while not binding strongly to other adenosine receptors. Such strong and selective binding would be expected to enable lower dosing of the product candidate and minimize unwanted binding to other adenosine receptors, which could reduce the potential for unwanted side effects. Binding is measured by determining a drug's binding affinity (Ki) for the target. Ki values in the low nanomolar (nM) range are indicative of strong binding occurring at low concentrations of the drug.

CPI-444 was shown *in vitro* to selectively bind to A2A receptors more strongly than any other adenosine receptors. As shown in the table below, CPI-444 was shown to bind to A2A receptors with an affinity (Ki) of 3.5 nM and was over 50 times more selective to the A2A receptors than to other adenosine receptor subtypes. Based on these results, we believe that at our current expected dose levels, CPI-444 is likely to bind to A2A receptors without exhibiting significant binding to A1, A2B or A3 receptors, which could lead to CPI-444 exhibiting an adequate safety profile and potential efficacy at reasonable doses.

**Selective Binding of CPI-444 to A2A Receptor**

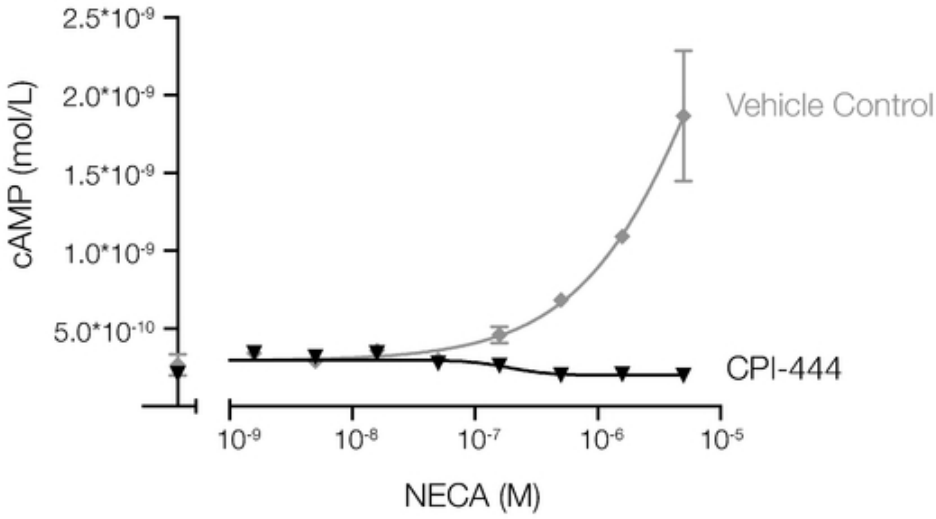
| Receptor | $K_i$ nM | Receptor Selectivity Ratio |
|---|---|---|
| Adenosine A2A | 3.5 | 1 |
| Adenosine A1 | 192 | 54 |
| Adenosine A2B | 1,528 | 431 |
| Adenosine A3 | 2,455 | 693 |

Efficacy in Preclinical *In Vitro* Immune Studies

We have evaluated CPI-444 in a series of *in vitro* studies directed toward its use as an immunotherapy for cancer. Adenosine receptors are G-protein coupled receptors (GPCRs) and signal intracellularly by stimulating production of cyclic adenosine monophosphate (cAMP). As shown in the figure below, in human T-cells studied *in vitro*, 1 µM of CPI-444 fully inhibited the production of intracellular cAMP following stimulation with 5'-*N*-ethylcarboxamidoadenosine (NECA), a stable analog

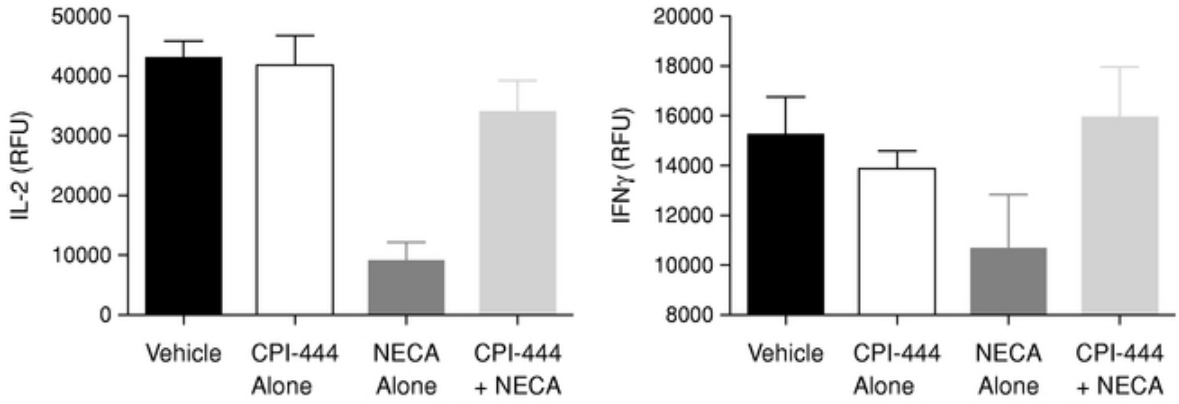
of adenosine. NECA is often used in laboratory experiments in place of adenosine because it is not degraded by naturally occurring enzymes. We believe this result demonstrates that CPI-444 can significantly block the immunosuppressive adenosine signaling in human T-cells, thereby limiting the immunosuppressive effects of adenosine. In addition, a concentration of 70 nM of CPI-444 was able to block 50% of the maximum cAMP production induced by adenosine in activated T-cells, representing relatively potent activity of the drug. CPI-444 also exhibited activity comparable to SCH58261, a commercially available laboratory grade A2A antagonist often used as a control in *in vitro* studies.

**Production of Intracellular cAMP in Human T-cells Treated with CPI-444**




We have also shown that CPI-444 restores the *in vitro* function of human activated T-cells, as assayed by IL-2 and IFNg secretion by activated T-cells, in the presence of immunosuppressive levels of NECA. IL-2 and IFNg are released by activated T-cells and are mediators of T-cell proliferation and killing of tumor cells. Adenosine reduces the levels of these mediators. Our experiments indicate that CPI-444 can overcome the immunosuppression caused by adenosine. The following figures show that 1 µM of adenosine decreased the stimulation of human T-cells following their activation as assayed by measuring levels of secreted IFNg or IL-2. Treatment of these cells with 1 µM CPI-444 restored IFNg and IL-2 secretion, suggesting that CPI-444 can restore immune function of cytotoxic T-cells following adenosine-induced T-cell suppression.

**Secretion of IL-2 and IFNg in Human T-cells Treated with CPI-444**

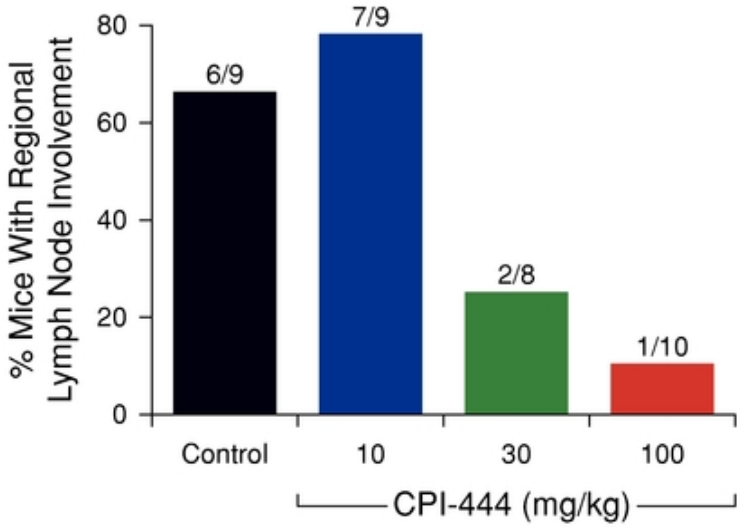


Efficacy in Preclinical *In Vivo* Mouse Models of Cancer

We have also tested CPI-444 in three different mouse models of tumor growth: an EL-4 lymphoma model, an MC38 colon tumor model and a CT26 colon tumor model.

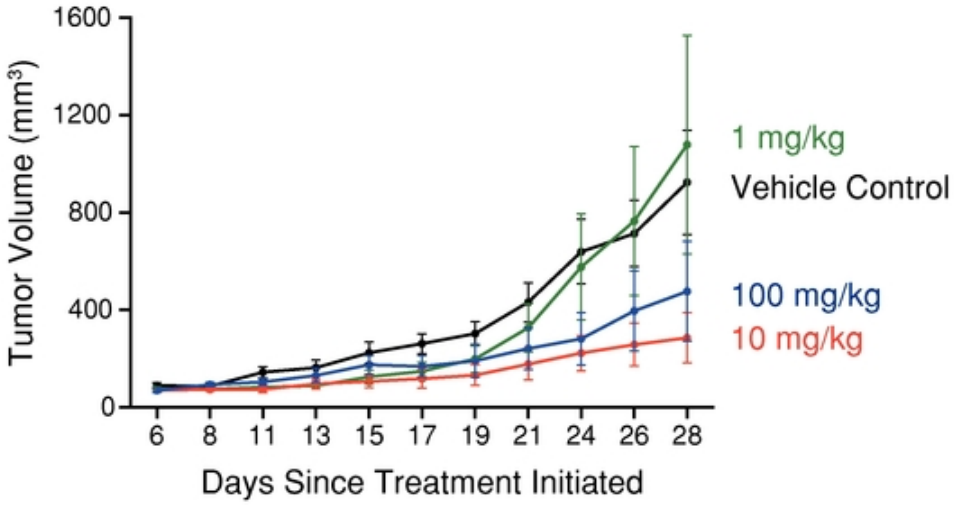
In the rapidly proliferating EL-4 lymphoma model, daily oral treatment with CPI-444 resulted in a small decrease in growth of the primary tumor at the injection site at a dose of 100 mg/kg. EL-4 is a lymphoma that rapidly spreads throughout the lymphatic system. As shown in the figure below, a significant reduction in the number of lymph nodes with cancer cells present, also known as lymph node involvement, was seen. At a dose of 100 mg/kg, only one of ten mice had measureable tumor lymph node involvement, as compared to the control study, where six of nine mice had widespread measureable lymph node involvement.

**Lymph Node Involvement in EL-4 Lymphoma Mouse Model during Treatment with CPI-444**



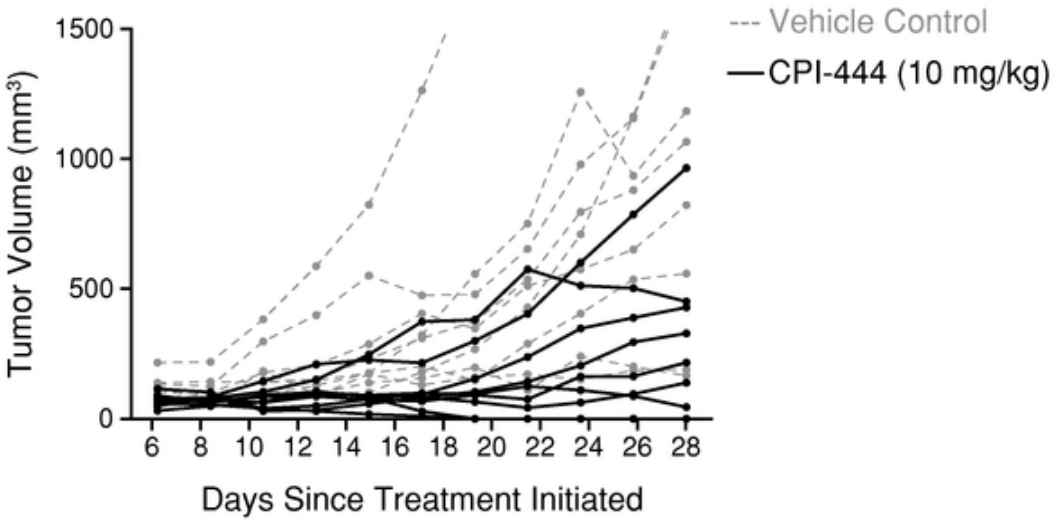
In the MC38 mouse colon cancer model shown in the figure below, the daily treatment of mice with CPI-444 led to a dose-dependent reduction in tumor growth at the primary tumor site that is significant in the 10 mg/kg (p=0.01) treatment group. The p-value is a measure that states the probability that a comparable or better result would be produced purely by chance. A p-value equal to 0.01 means that if the CPI-444 were only as effective as the placebo administered in the control, there would be a 1% chance that a comparable or better result would be produced purely by chance. A p-value £ 0.05 is commonly used as a criterion for statistical significance meaning that the effect is unlikely due to random chance.

**Tumor Volume in MC38 Colon Cancer Mouse Model during Treatment with CPI-444**



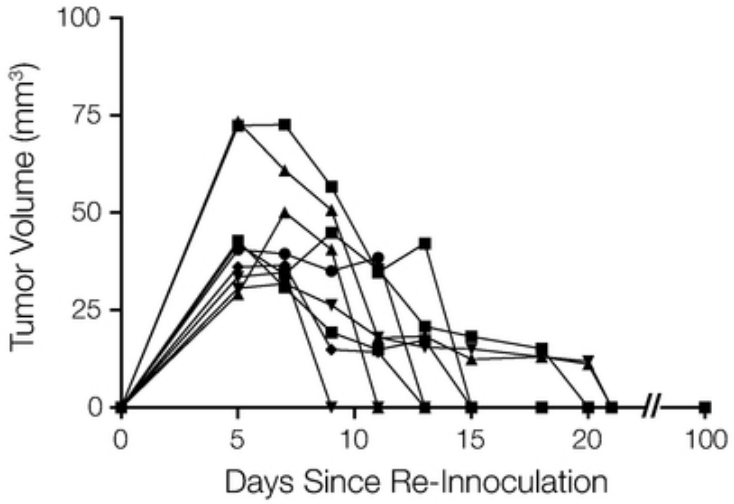

The figure below shows the tumor volume of each mouse treated with 10 mg/kg CPI-444. Such mice can be seen to have tumors that initially enlarged, but then regressed, or that achieved a measure of disease stability. Notably, complete regression of the tumor was observed in several of the mice treated with CPI-444, while none of the tumors in the mice in the control group completely regressed. Mice treated with 100 mg/kg exhibited similar results.

**Tumor Volume in MC38 Colon Cancer Mouse Model during Treatment with 10 mg/kg of CPI-444**



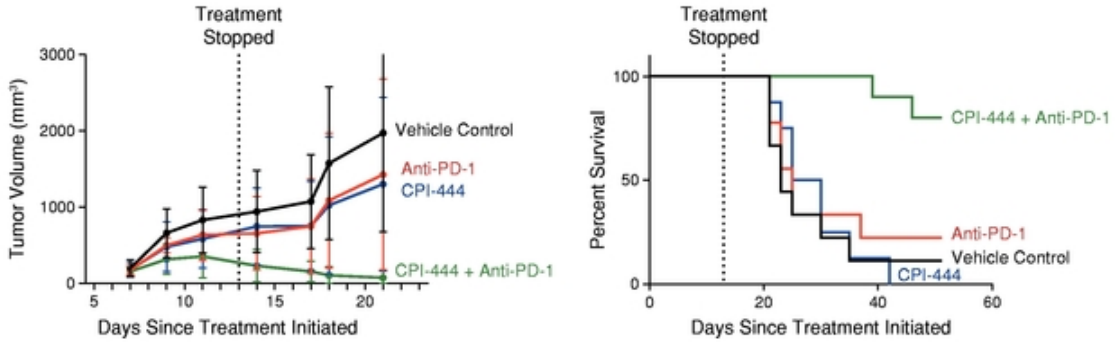
Following the initial 24-day treatment period, ten of the mice that had complete elimination of their tumors at doses of 10 mg/kg and 100 mg/kg were subsequently taken off of drug and evaluated for six weeks without treatment. During this time, no tumor re-growth was observed, suggesting these mice were cured of their tumors. In order to determine if the cured mice had developed immunity to the MC38 colon tumors, the mice were then re-inoculated with MC38 colon tumor cells, the same inoculum of tumor cells that were initially injected. As shown in the figure below, following an initial period of minimal tumor enlargement, all ten of the mice went on to reject the tumors even though no treatment was given. These results are consistent with the hypothesis that, once activated, the immune system can exhibit immunologic memory, potentially providing for a durable and long-lasting response.

**Tumor Volume in MC38 Colon Cancer Mouse Model**
**following Re-Inoculation with Tumor Cells in Previously Treated Mice**



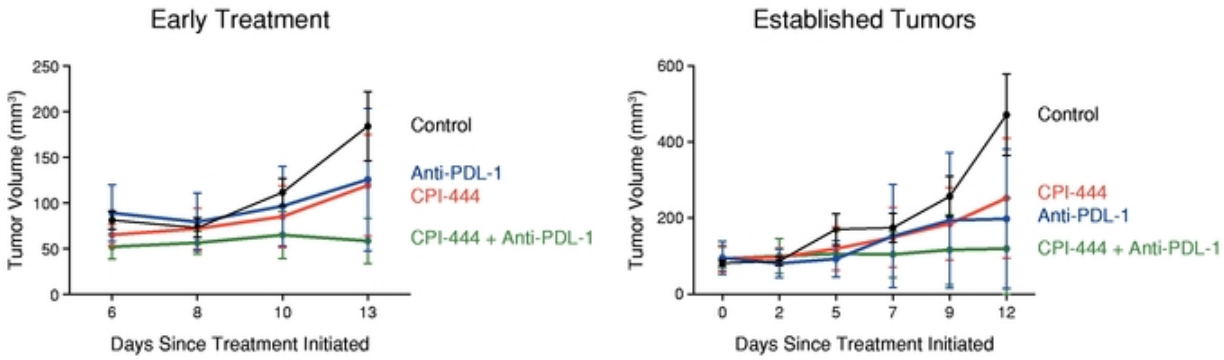

In the CT26 colon cancer mouse model, a relatively immunotherapy resistant tumor model, the administration of CPI-444 alone (100 mg/kg, oral) and an anti-PD-1 antibody alone led to a slight reduction in tumor growth. However, as shown in the figure below, the combination of CPI-444 (100 mg/kg, oral) and the anti-PD-1 agent led to a synergistic and significant ($p<0.05$) reduction in tumor growth as well as an improvement in overall survival compared to either CPI-444 alone or the anti-PD-1 agent alone. All of the mice who were administered the combination exhibited stable tumor volume or significant regression of their tumors. Seven of nine mice who were administered the combination treatment showed long-term survival.

**Tumor Volume and Survival Rates in CT26 Colon Cancer Mouse Model**
**following Treatment with CPI-444 and Anti-PD-1**



We have also evaluated CPI-444 in combination with an anti-PDL-1 agent in the MC38 colon cancer model. Mice were treated with oral CPI-444 at a dose of 10 mg/kg per day with or without the anti-PDL-1 antibody, both immediately and after seven days of tumor growth. As shown in the figure below, the combination produced better tumor control than either agent alone, both when given early in the course of tumor growth and when given after the tumor was more established. Mice similarly treated with oral CPI-444 at a dose of 100 mg/kg experienced similar results.

**Tumor Volume in MC38 Colon Cancer Mouse Model**
**following Treatment with 10 mg/kg CPI-444 and Anti-PDL-1**




*CPI-444 Clinical Development Plan*

In January 2016, we began enrolling patients in a Phase 1/1b, open-label, multicenter, multidose, dose-selection clinical trial for patients with selected advanced, incurable cancers. The trial is intended to examine oral CPI-444 administered as a single agent and in combination with Genentech's investigational cancer immunotherapy, atezolizumab (MPDL3280A), an anti-PDL-1 monoclonal antibody. Under our clinical trial collaboration agreement with Genentech, we will be responsible for the conduct and cost of the relevant studies, under the supervision of a joint development committee made up of our representatives and representatives of Genentech. Genentech will also supply atezolizumab. Pre-treatment and on-treatment tissue, blood and serum samples will be collected and tested for a wide range of biomarkers. We also plan to study the expression of numerous genes in tumor samples.

We plan to initially conduct the trial in multiple sites in the United States, Australia and Canada, with the potential for additional European sites at a later date. We intend to enroll patients with tumors that have been found by others to be responsive to immunotherapeutic agents. These tumors include non-small cell lung cancer, malignant melanoma, renal cell cancer, triple-negative breast cancer, colorectal cancer, head and neck cancer, bladder cancer and metastatic castration-resistant prostate cancer. Studies utilizing anti-CTLA-4 therapies, anti-PD-1 therapies and anti-PDL-1 therapies have shown that these tumors are more likely to possess immunogenic proteins that are capable of eliciting anti-tumor immune responses. As a result, we believe that selecting patients with these types of tumors will enhance our chances of identifying patients responsive to CPI-444 therapy.

The primary objectives of our clinical trial for CPI-444, as a single agent and in combination with atezolizumab, are to:

- evaluate the safety and tolerability of CPI-444 in cancer patients;
- determine appropriate dosage based on safety, pharmacokinetic and pharmacodynamic data;
- assess anti-tumor activity; and
- assess the potential role of various biomarkers to predict or monitor response to therapy.

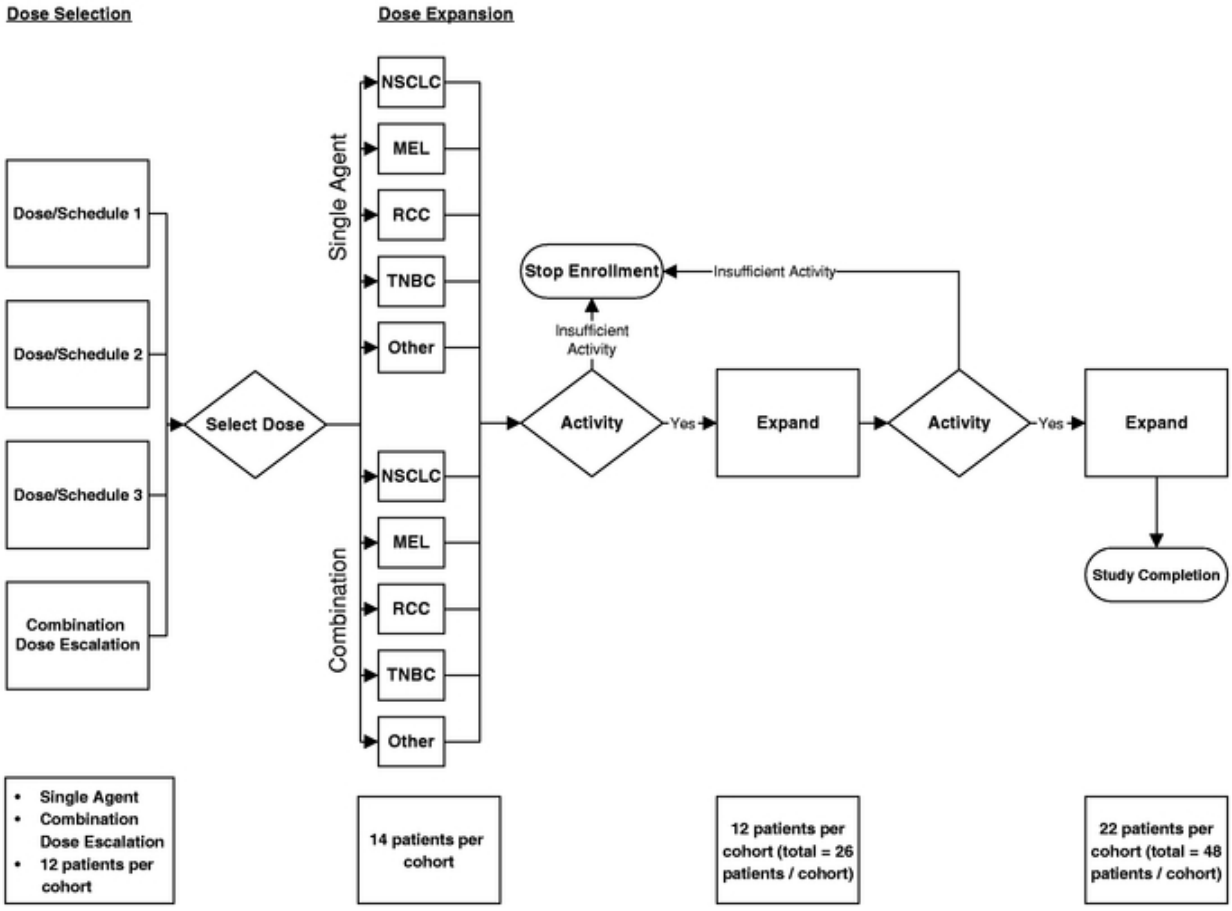
We expect to conduct our clinical trial of CPI-444, as a single agent and in combination with atezolizumab, in two steps:

- *Step 1—Dose Selection*: During this step, we intend to determine appropriate dosing based on safety, pharmacokinetic and biomarker studies. We intend to randomly enroll patients into one of four cohorts, with up to twelve patients per cohort. In three of the cohorts, we expect to test single agent CPI-444 at three different doses and schedules. In the fourth cohort, we expect to evaluate escalating doses of CPI-444 in combination with a fixed dose of atezolizumab.
- *Step 2—Dose Expansion*: During this step, we plan to further study the selected dose and schedule of CPI-444 as a single agent and in combination with atezolizumab in expansion cohorts. We expect this phase of the study to have ten cohorts, with five cohorts receiving single agent CPI-444 and five cohorts receiving the combination of CPI-444 and atezolizumab. Patients will enter disease-specific cohorts based on type of cancer and prior exposure to an anti-PD-1 or anti-PDL-1 antibody. We expect that each cohort will initially enroll up to 14 patients, with cohorts to be expanded. If a response (defined as partial or complete tumor response or disease stabilization for three months or more) in one or more patients out of 14 patients in a cohort is observed, then we intend to expand that cohort by twelve additional patients to a total of 26 patients. If no response is seen in the initial 14 patients, then we expect to cease enrollment in that cohort. If a response in five or more patients out of 26 patients in the expanded cohort respond is observed, then we intend to expand that cohort by an additional 22 patients, for a total of 48 patients. We believe this design will enhance our ability to detect responses in a range of tumor types.

The goal of this study is to determine dosing and scheduling for future studies. The endpoints for the trial are safety, tolerability and efficacy for CPI-444 given both as a single agent and in combination with atezolizumab. Numerous biomarker and immunologic analyses also may provide other exploratory endpoints. In addition to safety, the preliminary efficacy data will be useful for determining future clinical indications and the potential for enhancement of efficacy when CPI-444 is given in combination with atezolizumab.

The following is a schematic of the overall study design of our Phase 1/1b clinical trial showing three CPI-444 single agent dose selection and one combination CPI-444 and atezolizumab cohorts followed by disease-specific expansion cohorts that will receive single agent CPI-444 or CPI-444 combined with atezolizumab. The disease cohorts include non-small cell lung cancer (NSCLC), malignant melanoma (MEL), renal cell cancer (RCC) and triple-negative breast cancer (TNBC) and a single cohort (Other), which includes bladder cancer, head and neck cancer, colorectal cancer and metastatic castration-resistant prostate cancer.

**Phase 1/1b Clinical Trial Protocol**




***Product Candidate: A monoclonal anti-CD73 antibody for cancer***

*Overview*

In December 2014, we in-licensed from Scripps a mouse anti-human CD73 antibody. We have genetically engineered this antibody to be humanized by replacing the immunoglobulin (Ig) heavy and light chain constant regions, and by replacing the murine variable framework regions with human heavy and light chain Ig frameworks. In addition, we have further engineered the antibody to enhance binding to CD73 and to block its catalytic activity, which we expect will inhibit conversion of AMP to adenosine by tumor cells.

*The Role of CD73 in Cancer*

CD73 is an enzyme expressed on lymphocytes and tumor cells that regulates immune responses by producing immunosuppressive adenosine. The catalytic production of adenosine by CD73 may play an important role in tumor immune suppression by increasing the concentration of adenosine in the tumor microenvironment. CD73 has been shown to be overexpressed in many cancers, and high levels of CD73 have been shown to be associated with poor prognosis. CD73 expression on tumor cells as well as on the host immune cells has been shown to promote tumor immune suppression and metastasis in mice. Other studies in mice have shown that the targeted blockade of CD73 with antibodies can enhance the therapeutic activity of anti-PD-1 and anti-CTLA-4 checkpoint blockade. We believe CD73 and the adenosine-cancer axis may play a role in acquired resistance to anti-PD-1 and anti-PDL-1 therapies.

*Preclinical Proof of Concept*

In preclinical studies using tumor cells that express the CD73 enzyme, the addition of various concentrations of our humanized monoclonal anti-CD73 antibody to such cells in culture substantially inhibited the catalytic activity of the enzyme to background levels of the assay. This was studied by measuring the conversion of AMP to adenosine. These studies demonstrated that at concentrations of 10 µg/ml, the antibody was capable of substantially inhibiting the production of adenosine, which indicates that the antibody binds to a critical site in the CD73 enzyme necessary for its function. By blocking the cellular production of adenosine, we believe our anti-CD73 antibody could lead to enhancement of the anti-tumor immune response by lowering the amount of adenosine in the tumor environment. Other preclinical studies we conducted have shown that our anti-CD73 antibody binds to a variety of different types of cancer cell lines *in vitro*, including those derived from human breast cancer, lung cancer, lymphoma, leukemias and sarcomas.

*Anti-CD73 Development Plan*

We are initiating IND-enabling studies for the development of this antibody in potential clinical trials in patients with advanced cancer and plan to complete these studies in 2017. In particular, we intend to conduct additional preclinical studies in non-human primates to determine optimum dose and schedule.

***Product Candidate: An antagonist of the adenosine A2B receptor***

We have in-licensed several selective and potent adenosine A2B receptor antagonists from Vernalis. In addition, we are synthesizing and have identified other A2B receptor antagonists from our internal research program. Adenosine A2B receptors have recently been found to play an important role in the immune response to tumors. Similar to adenosine A2A receptors, adenosine binds to adenosine A2B receptors, which leads to immunosuppression. However, adenosine A2B receptor expression is found on different immune cells, and its function in tumor induced immune suppression is not yet well understood. We intend to further develop our A2B agents to improve potency, selectivity, pharmacokinetic behavior and immune enhancing properties. We have identified a candidate molecule that has exhibited over 200 times the selectivity for the A2B receptor as compared to the A2A receptor. We expect to conduct studies similar to those we have conducted for CPI-444 in order to select a development candidate in 2016. Upon selection, we intend to conduct further IND-enabling studies and potential phase 1 clinical trials.

**ITK Inhibitor**

***ITK and Anti-tumor Immune Response***

ITK is an enzyme expressed predominantly in T-cells where it plays a key role in T-cell signaling. T-cell signaling involving ITK is required in the development of T-cells within the thymus, where ITK

regulates the production of various T-cell subsets and functions. The ITK cell signaling pathway is similar to the signaling that occurs in B-cells, which is mediated by a homologous enzyme known as BTK, the target of ibrutinib, an approved treatment for patients with B-cell lymphomas and leukemias. We believe that inhibiting ITK in malignant T-cells may be of therapeutic benefit in patients with T-cell leukemias and lymphomas, analogous to the effects of ibrutinib on B-cell lymphomas and leukemias. In malignant T-cells, ITK was found to be over-expressed specifically in certain T-cell lymphomas, including peripheral T-cell lymphoma (PTCL), angioimmunoblastic T-cell lymphoma (AITL) and in a subgroup of T-lymphoblastic leukemia and lymphoma (T-ALL).

In ITK genetic knockout mice, which completely lack expression of ITK, T-cells exhibit defects in T helper cell differentiation and cytokine secretion but retain the ability to differentiate into cytotoxic T-cells that secrete IL-2 and IFNg, which are the cells responsible for tumor rejection. We believe that skewing T helper cell differentiation to favor cytotoxic T-cells may be beneficial in treating cancer. T-cells also express a redundant enzyme called resting lymphocyte kinase (RLK). RLK can signal in place of ITK in killer T-cells. Therefore, blocking ITK selectively, without affecting RLK, results in production of anti-tumor cytotoxic T-cells necessary for tumor rejection, as occurs in ITK genetic knockout mice.

***Product Candidate: An ITK kinase inhibitor***

We have identified ITK as a product candidate target because it plays a key role in T-cell receptor signaling and in the differentiation of T-cells responsible for tumor immunity. Small molecule inhibitors of ITK, such as ibrutinib, have been shown to shift the balance in signaling to enhance anti-tumor immune responses in combination with a checkpoint inhibitor. While this observation provides important target validation, ibrutinib is primarily a BTK inhibitor and lacks the necessary potency and selectivity for ITK, which is believed to limit the clinical use of ibrutinib as an ITK inhibitor in this setting. As a result, we believe an inhibitor specifically targeting ITK could enhance anti-tumor immune response.

We are currently developing selective small molecule covalent inhibitors of ITK by targeting the cysteine amino acid residue at position 442 in the ITK protein. Covalent targeting of ITK is expected to provide a selective and prolonged duration of activity without the need for high systemic exposures and thereby improve the therapeutic window. This approach was previously used by our co-founders to generate ibrutinib. We have synthesized several ITK inhibitors that are selective for ITK and do not react appreciably with RLK. It is anticipated that this selectivity will mimic the immune properties seen in ITK knockout mice and skew the immune response toward a more favorable anti-tumor immune response. We plan to select a lead development candidate under this program in 2016 and, following selection, advance the candidate into clinical trials in patients with cancers, including patients with T-cell lymphoma and other cancers, such as solid tumors.

**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 for clinical testing, as well as for manufacture of any products that we may commercialize. We are able to internally produce small quantities of our product candidates required for relatively short preclinical animal studies. We believe that this allows us to accelerate the drug development process by not having to rely on third parties for all of our research and development needs. However, we currently rely, and expect to continue to rely, on a number of contract manufacturers to produce sufficient quantities of our product candidates for use in more lengthy preclinical development and clinical trials and in relation to any future commercialization of our product candidates. Additional contract manufacturers are used to fill, label, package and distribute investigational drug products. This strategy allows us to maintain a more efficient infrastructure, avoid depending on our own

manufacturing facility and equipment while simultaneously enabling us to focus our expertise on developing our products. Although we believe we have multiple potential sources for the manufacturing of our product candidates, we currently rely on single manufacturers for different components of CPI-444 and are in discussions with third-party manufacturers for our anti-CD73 antibody.

**Commercialization Plan**

We currently have no sales, marketing or commercial product distribution capabilities and have no experience as a company in commercializing products. We intend to build our own commercialization organization and capabilities over time.

As product candidates advance through our pipeline, our commercial plans may change. Clinical data, the size of the development programs, the size of the target market, the size of a commercial infrastructure and manufacturing needs may all influence our U.S., European Union and rest-of-world strategies.

**Intellectual Property**

We strive to protect and enhance the proprietary technology, inventions, and improvements that are commercially important to our business, including seeking, maintaining and defending patent rights, whether developed internally or licensed from our collaborators or other third parties. We do not yet own any issued patents relating to our product candidates. Our policy is to seek to protect our proprietary position by, among other methods, filing patent applications in the United States and in jurisdictions outside of the United States covering our proprietary technology, inventions, improvements and product candidates that are important to the development and implementation of our business. We also rely on trade secrets and know-how relating to our proprietary technology and product candidates, continuing innovation, and in-licensing opportunities to develop, strengthen and maintain our proprietary position in the field of immuno-oncology. We also plan to rely on data exclusivity, market exclusivity, and patent term extensions when available. Our commercial success will depend in part on our ability to obtain and maintain patent and other proprietary protection for our technology, inventions, and improvements; to preserve the confidentiality of our trade secrets; to obtain and maintain licenses to use intellectual property owned by third parties; to defend and enforce our proprietary rights, including any patents that we may own in the future; and to operate without infringing on the valid and enforceable patents and other proprietary rights of third parties.

We have in-licensed patents and patent applications directed to certain of our product candidates and related uses thereof. We also possess and in-license substantial know-how and trade secrets relating to the development and commercialization of our product candidates, including related manufacturing processes and technology. As of January 31, 2016, our owned and licensed patent portfolio consists of seven licensed U.S. issued patents, two licensed U.S. pending patent applications and five owned U.S. provisional patent applications directed to CPI-444 or certain of our proprietary technology, inventions, improvements or other potential product candidates. In addition, our licensed patent portfolio includes 13 licensed patents issued in jurisdictions outside of the United States and five licensed patent applications pending in jurisdictions outside of the United States that are foreign counterparts to one or more of the foregoing U.S. patents and patent applications. The patents and patent applications outside of the United States in our portfolio are held primarily in Europe, Canada, Japan, Australia and China.

With respect to the immuno-oncology product candidates and processes we intend to develop and commercialize in the normal course of business, we intend to pursue patent protection covering, when possible, compositions, methods of use, dosing and formulations. We may also pursue patent protection with respect to manufacturing and drug development processes and technologies.

Issued patents can provide protection for varying periods of time, depending upon the date of filing of the patent application, the date of patent issuance, and the legal term of patents in the

countries in which they are obtained. In general, patents issued for applications filed in the United States can provide exclusionary rights for 20 years from the earliest effective filing date. In addition, in certain instances, the term of an issued United States patent that covers or claims an FDA approved product can be extended to recapture a portion of the term effectively lost as a result of the FDA regulatory review period, which is called patent term extension. The restoration period cannot be longer than five years and the total patent term, including the restoration period, must not exceed 14 years following FDA approval. The term of patents outside of the United States varies in accordance with the laws of the foreign jurisdiction, but typically is also 20 years from the earliest effective filing date. The issued United States patents we license from Vernalis directed to the composition of matter of CPI-444 and its method of use for treating disorders treatable by purine receptor blocking are expected to expire between January 2022 and July 2029, excluding any patent term extension that may be available. However, the actual protection afforded by a patent varies on a product-by-product basis, from country-to-country, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country, and the validity and enforceability of the patent.

The patent positions of companies like ours are generally uncertain and involve complex legal and factual questions. No consistent policy regarding the scope of claims allowable in patents in the field of immuno-oncology has emerged in the United States. The relevant patent laws and their interpretation outside of the United States is also uncertain. Changes in either the patent laws or their interpretation in the United States and other countries may diminish our ability to protect our technology or product candidates and enforce the patent rights that we license, and could affect the value of such intellectual property. In particular, our ability to stop third parties from making, using, selling, offering to sell, or importing products that infringe our intellectual property will depend in part on our success in obtaining and enforcing patent claims that cover our technology, inventions, and improvements. With respect to both licensed and company-owned intellectual property, we cannot guarantee that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications we may file in the future, nor can we be sure that any patents that may be granted to us in the future will be commercially useful in protecting our products, the methods of use or manufacture of those products. Moreover, even the issued patents that we license do not guarantee us the right to practice our technology in relation to the commercialization of our products. Patent and other intellectual property rights in the pharmaceutical and biotechnology space are evolving and involve many risks and uncertainties. For example, third parties may have blocking patents that could be used to prevent us from commercializing our product candidates and practicing our proprietary technology, and the issued patents that we in-license and those that may issue in the future may be challenged, invalidated, or circumvented, which could limit our ability to stop competitors from marketing related products or could limit the term of patent protection that otherwise may exist for our product candidates. In addition, the scope of the rights granted under any issued patents may not provide us with protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may independently develop similar technologies that are outside the scope of the rights granted under any issued patents that we own or exclusively in-license. For these reasons, we may face competition with respect to our product candidates. Moreover, because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that, before any particular product candidate can be commercialized, any patent protection for such product may expire or remain in force for only a short period following commercialization, thereby reducing the commercial advantage the patent provides.

**Licenses and Collaborations**

***Vernalis Licensing Agreement***

In February 2015, we entered into a license agreement with Vernalis, pursuant to which we were granted an exclusive, worldwide license under certain patent rights and know-how, including a limited

right to grant sublicenses, for all fields of use to develop, manufacture and commercialize products containing certain adenosine receptor antagonists, including CPI-444. The issued U.S. patents that we in-licensed from Vernalis pursuant to this agreement are directed to the composition of matter of CPI-444 and its method of use for treating disorders treatable by purine receptor blocking. These patents are expected to expire in the United States between January 2022 and July 2029, excluding any patent term extension that may be available. Vernalis has the first right to prosecute and maintain the licensed patent rights worldwide, subject to our right with respect to certain of the licensed patents to continue prosecution and maintenance if Vernalis elects not to do so. We also have the right to prosecute and maintain any patent rights that we may own that cover the licensed compounds that do not fall within the licensed patent rights. Pursuant to this agreement, we are required to use commercially reasonable efforts to conduct certain activities to obtain marketing authorizations for licensed products and to conduct certain preclinical and clinical studies for CPI-444. We also must use commercially reasonable efforts to conduct certain preclinical and clinical studies to support the use of CPI-444 as an immunotherapeutic agent for cancer studies, and to meet certain specified development, regulatory and commercial milestones within specified time periods.

Pursuant to this agreement, we made a one-time cash payment to Vernalis in the amount of $1.0 million. We are also required to make cash milestone payments to Vernalis upon the successful completion of clinical and regulatory milestones for licensed products depending on the indications for which such licensed products are developed and upon achievement of certain sales milestones. The aggregate potential milestone payments are approximately $220 million for all indications.

We have also agreed to pay Vernalis tiered incremental royalties based on the annual net sales of licensed products containing CPI-444 on a product-by-product and country-by-country basis, subject to certain offsets and reductions. The tiered royalty rates for products containing CPI-444 range from the mid-single digits up to the low-double digits on a country-by-country net sales basis. The royalties on other licensed products that do not include CPI-444 also increase with the amount of net sales on a product-by-product and country-by-country basis and range from the low-single digits up to the mid-single digits on a country-by-country net sales basis. We are also obligated to pay to Vernalis certain sales milestones as indicated above when worldwide net sales reach specified levels over an agreed upon time period.

The agreement will expire on a product-by-product and country-by-country basis upon the expiration of our payment obligations to Vernalis in respect of a particular product and country. Both parties have the right to terminate the agreement in the event of an uncured material breach by the other party. We may also terminate the agreement at our convenience by providing 90 days written notice, provided that we have not received notice of our own default under the agreement at the time we exercise such termination right. Vernalis may also terminate the agreement if we challenge a licensed patent or undergo a bankruptcy event.

***Scripps Licensing Agreement***

In December 2014, we entered into a license agreement with Scripps, pursuant to which we were granted a non-exclusive, world-wide license for all fields of use under Scripps' rights in certain know-how and technology related to a mouse hybridoma clone expressing an anti-human CD73 antibody, and to progeny, mutants or unmodified derivatives of such hybridoma and any antibodies expressed by such hybridoma. Scripps also granted us the right to grant sublicenses in conjunction with other proprietary rights we hold, or to others collaborating with or performing services for us. Under this license agreement, Scripps has agreed not to grant any additional commercial licenses with respect to such materials, other than march-in rights granted to the U.S. government.

Upon execution of the agreement, we made a one-time cash payment to Scripps of $10,000 and are also obligated to pay a minimum annual fee to Scripps of $25,000. The first minimum annual fee payment is due on the first anniversary of effective date of the agreement and will be due on each subsequent anniversary of the effective date for the term of the agreement. We are also required to make performance-based cash payments upon successful completion of clinical and sales milestones. The aggregate potential milestone payments are $2.6 million. We are also required to pay royalties on net sales of licensed products sold by us, our affiliates and our sublicensees at a rate in the low-single digits. In addition, should we sublicense the rights licensed under the agreement, we have agreed to pay a percentage of sublicense revenue received at specified rates that start at double digit percentages and decrease to single digit percentages based on the elapsed time from the effective date of the agreement and the time of entry into such sublicense.

Our license agreement with Scripps will terminate upon expiration of our obligation to pay royalties to Scripps under the license agreement. The license agreement is terminable by the consent of the parties, at will by us or upon providing 90 days written notice to Scripps, or by Scripps for certain material breaches by us, or if we undergo a bankruptcy event. In addition, Scripps may terminate our license on a product-by-product basis, or the entire agreement, if we fail to meet specified diligence obligations related to the development and commercialization of licensed products. Scripps may also terminate the agreement after the third anniversary of the effective date of the agreement if it reasonably believes, based on reports we provide to Scripps, that we have not used commercially reasonable efforts as required under the agreement, subject to a specified notice and cure period.

***Genentech Collaboration Agreement***

In October 2015, we entered into a clinical trial collaboration agreement with Genentech to evaluate the safety, tolerability and preliminary efficacy of CPI-444 combined with Genentech's investigational cancer immunotherapy, atezolizumab (MPDL3280A), a fully humanized monoclonal antibody targeting PDL-1, in a variety of solid tumors in our Phase 1/1b clinical trial. Pursuant to this agreement, we will be responsible for the conduct and cost of the relevant studies, under the supervision of a joint development committee made up of our representatives and representatives of Genentech. Genentech will supply atezolizumab. As part of the agreement, we granted Genentech certain rights of first negotiation to participate in future clinical trials that we may conduct evaluating the administration of CPI-444 in combination with an anti-PD-1 or anti-PDL-1 antibody. If we do not reach agreement on the terms of any such participation by Genentech within a specified time period, we retain the right to collaborate with third parties in such activities. We also granted Genentech certain rights of first negotiation should we decide to license development and commercialization rights to CPI-444. Should we not reach agreement on the terms of such a license within a specified time period, we retain the right to enter into a license with another third party.

We and Genentech each have the right to terminate the agreement for material breach by the other party. In addition, the agreement may be terminated by either party due to safety considerations, if directed by a regulatory authority or if development of CPI-444 or atezolizumab is discontinued. Further, the agreement will expire after a set period of time following the provision by us of the final clinical study report to Genentech.

**Competition**

The pharmaceutical and biotechnology industries are characterized by intense competition and rely heavily on the ability to move quickly, adapt to changing medical and market needs, and to develop and maintain strong intellectual property positions. We believe that the development experience of our scientific and management team, as well as the strength and promise of our product candidates, provide us with a competitive advantage; nevertheless, we face potential competition from myriad

sources, including pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions.

We are aware of companies that have advanced adenosine A2A receptor antagonists into early- or late-stage clinical development for non-oncology indications, primarily Parkinson's disease. These companies include Merck & Co., Inc. and Biotie Therapies Corp. In addition, Kyowa Hakko Kirin Pharma, Inc. has approval in Japan for an adenosine A2A receptor antagonist for use in Parkinson's disease and is currently conducting a Phase 3 study in the United States for Parkinson's disease. Within oncology, Palobiofarma SL has submitted an IND to begin a Phase 1 dose finding clinical trial with an adenosine A2A antagonist in lung cancer patients. Novartis has announced an exclusive licensing agreement with Palobiofarma. AstraZeneca plc has recently licensed a preclinical A2A antagonist for use in cancer therapy. In addition, Redoxtherapies, Inc. is developing an A2A receptor antagonist for cancer. More generally, in the field of immuno-oncology, there are large pharmaceutical companies with approved products or products in late-stage development that target other immune checkpoints, including PD-1, PDL-1 or CTLA-4. These companies include Bristol-Myers Squibb (nivolumab, ipilimumab), Merck (pembrolizumab), Genentech (atezolizumab) and AstraZeneca (tremelimumab). Also, AstraZeneca and MedImmune LLC have recently announced the initiation of a Phase 1 study with an anti-CD73 antibody. Finally, Janssen Pharmaceuticals, Inc. and AbbVie Inc. are co-marketing Imbruvica (ibrutinib), which is a small molecule inhibitor of the kinase BTK that has also been reported to inhibit ITK.

**Regulation**

Government authorities in the United States, at the federal, state and local level, and other countries extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, marketing and export and import of products such as those we are developing. A new drug must be approved by the FDA through the NDA process and a new biologic must be approved by the FDA through the BLA process before it may be legally marketed in the United States.

***United States Drug Development Process***

In the United States, the FDA regulates drugs under the federal Food, Drug, and Cosmetic Act (FDCA), and in the case of biologics, also under the Public Health Service Act (PHSA), and their implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval may subject an applicant to administrative or judicial sanctions. These sanctions could include the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

The process required by the FDA before a drug or biologic may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in accordance with GLP regulations and other applicable regulations;

- submission to the FDA of an IND, which must become effective before human clinical trials may begin;

- performance of adequate and well-controlled human clinical trials in accordance with Good Clinical Practice (GCP) regulations to establish the safety and efficacy of the proposed drug for its intended use;

- submission to the FDA of an NDA or BLA;

- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug is produced to assess compliance with current Good Manufacturing Practices (cGMP) requirements 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 or BLA.

Once a pharmaceutical candidate is identified for development, it enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information and analytical data, to the FDA as part of the IND. The sponsor will also include a protocol detailing, among other things, the objectives of the first phase of the clinical trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated, if the first phase lends itself to an efficacy evaluation. Some preclinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, places the clinical trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Clinical holds also may be imposed by the FDA at any time before or during clinical trials due to safety concerns about on-going or proposed clinical trials or non-compliance with specific FDA requirements, and the trials may not begin or continue until the FDA notifies the sponsor that the hold has been lifted.

All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with GCP regulations. They must be conducted under protocols detailing the objectives of the trial, dosing procedures, subject selection and exclusion criteria and the safety and effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND, and timely safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events. An institutional review board (IRB) at each institution participating in the clinical trial must review and approve each protocol before a clinical trial commences at that institution and must also approve the information regarding the trial and the consent form that must be provided to each trial subject or his or her legal representative, monitor the study until completed and otherwise comply with IRB regulations.

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

- ***Phase 1***: The product candidate is initially introduced into healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion. In the case of some products for severe or life-threatening diseases, such as cancer, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients. Sponsors sometimes designate their Phase 1 trials as Phase 1a or Phase 1b. Phase 1b trials are typically aimed at confirming dosing, pharmacokinetics and safety in larger number of patients. Some Phase 1b studies evaluate biomarkers or surrogate markers that may be associated with efficacy in patients with specific types of diseases.

- ***Phase 2***: This phase involves clinical trials in 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 appropriate dosage.

- ***Phase 3***: Clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical study sites. These clinical trials are intended to establish the overall risk-benefit ratio of the product candidate and provide, if appropriate, an adequate basis for product labeling.

Post-approval trials, sometimes referred to as Phase 4 studies, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, the FDA may mandate the performance of Phase 4 clinical trials as a condition of approval of an NDA or BLA.

The FDA or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the research subjects or patients 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. In addition, some clinical trials are overseen by an independent group of qualified experts organized by the sponsor, known as a data safety monitoring board or committee. Depending on its charter, this group may determine whether a trial may move forward at designated check points based on access to certain data from the trial.

During the development of a new drug or biologic, sponsors are given opportunities to meet with the FDA at certain points. These points may be prior to submission of an IND, at the end of Phase 2, and before an NDA or BLA is submitted. Meetings at other times may be requested. These meetings can provide an opportunity for the sponsor to share information about the data gathered to date, for the FDA to provide advice, and for the sponsor and the FDA to reach agreement on the next phase of development. Sponsors typically use the meetings at the end of the Phase 2 trial to discuss Phase 2 clinical results and present plans for the pivotal Phase 3 clinical trial that they believe will support approval of the new drug or biologic.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final drug. In addition, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

While the IND is active and before approval, progress reports summarizing the results of the clinical trials and nonclinical studies performed since the last progress report must be submitted at least annually to the FDA, and written IND safety reports must be submitted to the FDA and investigators for serious and unexpected suspected adverse events, findings from other studies suggesting a significant risk to humans exposed to the same or similar drugs, findings from animal or *in vitro* testing suggesting a significant risk to humans, and any clinically important increased incidence of a serious suspected adverse reaction compared to that listed in the protocol or investigator brochure.

There are also requirements governing the reporting of ongoing clinical trials and completed trial results to public registries. Sponsors of certain clinical trials of FDA-regulated products are required to register and disclose specified clinical trial information, which is publicly available at www.clinicaltrials.gov. Information related to the product, patient population, phase of investigation, trial sites and investigators and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved.

***United States Review and Approval Process***

The results of product development, preclinical and other non-clinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug, proposed labeling and other relevant information are submitted to the FDA as part of an NDA or BLA requesting approval to market the product. The submission of an NDA or BLA is subject to the payment of user fees; a waiver of such fees may be obtained under certain limited circumstances. The FDA reviews all NDAs and BLAs submitted to ensure that they are sufficiently complete for substantive review before it accepts them for filing. The FDA may request additional information rather than accept an NDA or BLA for filing. In this event, the NDA or BLA must be resubmitted with the additional information. The resubmitted application also is 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 may refer the NDA or BLA to an advisory committee for review, evaluation and recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. The approval process is lengthy and often difficult, and the FDA may refuse to approve an NDA or BLA if the applicable regulatory criteria are not satisfied or may require additional clinical or other data and information. Even if such data and information are submitted, the FDA may ultimately decide that the NDA or BLA does not satisfy the criteria for approval. The FDA reviews an NDA to determine, among other things, whether a product is safe and effective for its intended use and whether its manufacturing is cGMP-compliant to assure and preserve the product's identity, strength, quality and purity. The FDA reviews a BLA to determine, among other things whether the product is safe, pure and potent and the facility in which it is manufactured, processed, packed or held meets standards designed to assure the product's continued safety, purity and potency. Before approving an NDA or BLA, the FDA will inspect the facility or facilities where the product is manufactured.

After the FDA evaluates an NDA or BLA, it will issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application will not be approved in its present form. A Complete Response Letter usually describes the specific deficiencies in the NDA or BLA identified by the FDA and may require additional clinical data, such as an additional pivotal Phase 3 trial or other significant and time-consuming requirements related to clinical trials, nonclinical studies or manufacturing. If a Complete Response Letter is issued, the sponsor must resubmit the NDA or BLA, addressing all of the deficiencies identified in the letter, or withdraw the application. Even if such data and information are submitted, the FDA may decide that the NDA or BLA does not satisfy the criteria for approval.

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. In addition, the FDA may require a sponsor to conduct Phase 4 testing, which involves clinical trials designed to further assess a drug's safety and effectiveness after NDA or BLA approval, and may require testing and surveillance programs to monitor the safety of approved products which have been commercialized. The FDA may also place other conditions on approval including the requirement for a risk evaluation and mitigation strategy (REMS) to assure the safe use of the drug. If the FDA concludes a REMS is needed, the sponsor of the NDA must submit a proposed REMS. The FDA will not approve the NDA without an approved REMS, if required. A REMS could include medication guides, physician communication plans or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of products. Marketing approval may be withdrawn for non-compliance with regulatory requirements or if problems occur following initial marketing.

The Food and Drug Administration Safety and Innovation Act (FDASIA) made permanent the Pediatric Research Equity Act (PREA), which requires a sponsor to conduct pediatric clinical trials for most drugs and biologics, for a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration. Under PREA, original NDAs, BLAs and supplements thereto must contain a pediatric assessment unless the sponsor has received a deferral or waiver. The required assessment must evaluate the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations and support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The sponsor or FDA may request a deferral of pediatric clinical trials for some or all of the pediatric subpopulations. A deferral may be granted for several reasons, including a finding that the drug or biologic is ready for approval for use in adults before pediatric clinical trials are complete or that additional safety or effectiveness data needs to be collected before the pediatric clinical trials begin. The FDA must send a non-compliance letter to any sponsor that fails to submit the required assessment, keep a deferral current or fails to submit a request for approval of a pediatric formulation.

***Orphan Drug Designation***

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, which is a disease or condition that affects fewer than 200,000 individuals in the United States or, if it affects more than 200,000 individuals in the United States, there is no reasonable expectation that the cost of developing and making a drug or biologic product available in the United States for this type of disease or condition will be recovered from sales of the product. Orphan designation must be requested before submitting an NDA or BLA. After the FDA grants orphan designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug or biological product for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan exclusivity or inability to manufacture the product in sufficient quantities. The designation of such drug or biologic also entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. However, competitors, may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity. Orphan exclusivity also could block the approval of one of our product candidates for seven years if a competitor obtains approval of the same drug or biologic as defined by the FDA or if our product candidate is determined to be contained within the competitor's product for the same indication or disease. If an orphan designated product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan exclusivity. Orphan drug status in the European Union has similar but not identical benefits in that jurisdiction.

Although we have not sought or obtained orphan designation for any of our product candidates, we may pursue such designation in the future if we determine that our proposed indications meet the qualifying criteria for such designation.

***Expedited Development and Review Programs***

The FDA has a Fast Track program that is intended to expedite or facilitate the process for reviewing new drug products that meet certain criteria. Specifically, new drugs are eligible for Fast Track designation if they are intended to treat a serious or life-threatening disease or condition and

demonstrate the potential to address unmet medical needs for the disease or condition. Fast Track designation applies to the combination of the product and the specific indication for which it is being studied. Unique to a Fast Track product, the FDA may consider for review sections of the NDA or BLA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA or BLA, the FDA agrees to accept sections of the NDA or BLA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the NDA or BLA.

Any product submitted to the FDA for approval, including a product with a Fast Track designation, may also be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. A product is eligible for priority review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of an application for a new drug designated for priority review in an effort to facilitate the review. The FDA endeavors to review applications with priority review designations within six months of the filing date as compared to ten months for review of original BLAs and new molecular entity NDAs under its standard review goals.

In addition, a product may be eligible for accelerated approval. Drug and biologic products intended to treat serious or life-threatening diseases or conditions may be eligible for accelerated approval upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require that a sponsor of a drug receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. Fast Track designation, priority review and accelerated approval do not change the standards for approval but may expedite the development or approval process.

FDASIA established a new category of drugs and biologics referred to as "breakthrough therapies" that may be eligible to receive Breakthrough Therapy Designation. A sponsor may seek FDA designation of a drug or biologic candidate as a "breakthrough therapy" if the product is intended, alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The designation includes all of the Fast Track program features, as well as more intensive FDA interaction and guidance. The Breakthrough Therapy Designation is a distinct status from both accelerated approval and priority review, which can also be granted to the same drug if relevant criteria are met. If a product is designated as breakthrough therapy, the FDA will expedite the development and review of such drug. All requests for breakthrough therapy designation will be reviewed within 60 days of receipt, and the FDA will either grant or deny the request.

***Post-approval requirements***

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market. After approval, some types of changes to the approved product, such as adding new indications, certain manufacturing changes and additional

labeling claims, are subject to further FDA review and approval. Drug and biologics manufacturers and other entities involved in the manufacture and distribution of approved drugs and biologics are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP regulations and other laws and regulations.

Any drug products manufactured or distributed by us or our partners pursuant to FDA approvals will be subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the drug, providing the FDA with updated safety and efficacy information, drug sampling and distribution requirements, complying with certain electronic records and signature requirements, and complying with FDA promotion and advertising requirements. The FDA strictly regulates labeling, advertising, promotion and other types of information on products that are placed on the market and imposes requirements and restrictions on drug and biologics manufacturers, such as those related to direct-to-consumer advertising, the prohibition on promoting products for uses or in patient populations that are not described in the product's approved labeling (known as "off-label use"), industry-sponsored scientific and educational activities, and promotional activities involving the internet. Discovery of previously unknown problems or the failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant or manufacturer to administrative or judicial civil or criminal sanctions and adverse publicity. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval, clinical hold, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors, debarment, restitution, disgorgement of profits, or civil or criminal penalties.

***Patent Term Restoration and Marketing Exclusivity***

Depending upon the timing, duration and specifics of FDA approval of our product candidates, some of the U.S. patents that we may be granted in the future may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of an NDA or BLA, plus the time between the submission date of an NDA or BLA and the approval of that application, less any time the applicant did not act with due diligence. Only one patent applicable to an approved drug is eligible for the extension, and the extension must be applied for prior to expiration of the patent. The United States Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we intend to apply for restorations of patent term for patents that may be issued to us, depending on the expected length of clinical trials and other factors involved in the filing of the relevant marketing application.

Market exclusivity provisions under the FDCA can also delay the submission or the approval of certain marketing applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to obtain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not approve or even accept for review an

abbreviated new drug application (ANDA) or a NDA submitted under Section 505(b)(2), or 505(b)(2) NDA, submitted by another company for another drug based on the same active moiety, regardless of whether the drug is intended for the same indication as the original innovative drug or for another indication, where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement to one of the patents listed with the FDA by the innovator NDA holder. The FDCA alternatively provides three years of marketing exclusivity for an NDA, or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the modification for which the drug received approval on the basis of the new clinical investigations and does not prohibit the FDA from approving ANDAs or 505(b)(2) NDAs for drugs containing the active agent for the original indication or condition of use. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Pediatric exclusivity is a type of marketing exclusivity available in the United States. Pediatric exclusivity under the Best Pharmaceuticals for Children Act (BPCA) provides for an additional six months of marketing exclusivity if a sponsor conducts clinical trials in children in response to a written request from the FDA. If such written request does not include clinical trials in neonates, the FDA is required to include its rationale for not requesting those clinical trials. The FDA may request studies on approved or unapproved indications in separate written requests. The issuance of a written request does not require the sponsor to undertake the described clinical trials. In addition, orphan drug exclusivity, as described above, may offer a seven-year period of marketing exclusivity, except in certain circumstances.

***Biosimilars and Exclusivity***

The Affordable Care Act includes a subtitle called the Biologics Price Competition and Innovation Act of 2009 (BPCIA), which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. To date, only one biosimilar has been licensed under the BPCIA, although numerous biosimilars have been approved in Europe. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars.

Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency, can be shown through analytical studies, animal studies, and a clinical study or studies. Interchangeability requires that a product is biosimilar to the reference product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product in any given patient and, for products that are administered multiple times to an individual, the biologic and the reference biologic may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. However, complexities associated with the larger, and often more complex, structures of biological products, as well as the processes by which such products are manufactured, pose significant hurdles to implementation of the abbreviated approval pathway that are still being addressed by the FDA.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until twelve years from the date on which the reference product was first licensed. During this twelve-year period of exclusivity,

another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. At this juncture, it is unclear whether products deemed "interchangeable" by the FDA will, in fact, be readily substituted by pharmacies, which are governed by state pharmacy law.

The BPCIA is complex and only beginning to be interpreted and implemented by the FDA. In addition, recent government proposals have sought to reduce the twelve-year reference product exclusivity period. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. As a result, the ultimate impact, implementation and meaning of the BPCIA is subject to significant uncertainty.

***Government Regulation Outside of the United States***

In addition to regulations in the United States, we will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical studies and any commercial sales and distribution of our product candidates.

Whether or not we obtain FDA approval for a product candidates, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical studies or marketing of the product candidates in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical study application much like the IND prior to the commencement of human clinical studies. In the European Union, for example, a clinical trial authorization (CTA) must be submitted to each country's national health authority and an independent ethics committee, much like the FDA and the IRB, respectively. Once the CTA is approved in accordance with a country's requirements, clinical study development may proceed.

The requirements and process governing the conduct of clinical studies, product licensing, pricing and reimbursement vary from country to country. In all cases, the clinical studies are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

To obtain regulatory approval of an investigational biological product under European Union regulatory systems, we must submit a marketing authorization application. The application used to file the BLA in the United States is similar to that required in the European Union, with the exception of, among other things, country-specific document requirements. The European Union also provides opportunities for market exclusivity. For example, in the European Union, upon receiving marketing authorization, new chemical entities generally receive eight years of data exclusivity and an additional two years of market exclusivity. If granted, data exclusivity prevents regulatory authorities in the European Union from referencing the innovator's data to assess a generic application. During the additional two-year period of market exclusivity, a generic marketing authorization can be submitted, and the innovator's data may be referenced, but no generic product can be marketed until the expiration of the market exclusivity. However, there is no guarantee that a product will be considered by the European Union's regulatory authorities to be a new chemical entity, and products may not qualify for data exclusivity. Products receiving orphan designation in the European Union can receive ten years of market exclusivity, during which time no similar medicinal product for the same indication may be placed on the market. An orphan product can also obtain an additional two years of market exclusivity in the European Union for pediatric studies. No extension to any supplementary protection certificate can be granted on the basis of pediatric studies for orphan indications.

The criteria for designating an "orphan medicinal product" in the European Union are similar in principle to those in the United States. Under Article 3 of Regulation (EC) 141/2000, a medicinal product may be designated as orphan if (1) it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition; (2) either (a) such condition affects no more than five in 10,000 persons in the European Union when the application is made, or (b) the product, without the benefits derived from orphan status, would not generate sufficient return in the European Union to justify investment; and (3) there exists no satisfactory method of diagnosis, prevention or treatment of such condition authorized for marketing in the European Union, or if such a method exists, the product will be of significant benefit to those affected by the condition, as defined in Regulation (EC) 847/2000. Orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers and are, upon grant of a marketing authorization, entitled to ten years of market exclusivity for the approved therapeutic indication. The application for orphan drug designation must be submitted before the application for marketing authorization. The applicant will receive a fee reduction for the marketing authorization application if the orphan drug designation has been granted, but not if the designation is still pending at the time the marketing authorization is submitted. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

The 10-year market exclusivity may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, for example, if the product is sufficiently profitable not to justify maintenance of market exclusivity. In addition, marketing authorization may be granted to a similar product for the same indication at any time if:

- the second applicant can establish that its product, although similar, is safer, more effective or otherwise clinically superior;
- the applicant consents to a second orphan medicinal product application; or
- the applicant cannot supply enough orphan medicinal product.

For other countries outside of the European Union, such as countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical studies, product licensing, pricing and reimbursement vary from country to country. In all cases, again, the clinical studies are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

***Other Healthcare Laws***

In addition to FDA restrictions on marketing of pharmaceutical and biological products, other U.S. federal and state healthcare regulatory laws restrict business practices in the pharmaceutical industry, which include, but are not limited to, state and federal anti-kickback, false claims, data privacy and security and physician payment transparency laws. These laws may affect our sales, marketing and other promotional activities by limiting the kinds of financial arrangements we may have with physicians, customers and third-party payors including discount practices, customer support, education and training programs, physician consulting and other service arrangements. In addition, manufacturers can be held liable under the False Claims Act even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers or promoting a product off-label. These laws are broadly written, and it is often difficult to determine precisely how these laws will be applied to specific circumstances.

Such laws include:

- The federal Anti-Kickback Statute, which prohibits, among other things, any person or entity from knowingly and willfully offering, paying, soliciting, receiving or providing any remuneration, directly or indirectly, overtly or covertly, to induce or in return for purchasing, leasing, ordering or arranging for or recommending the purchase, lease or order of any item or service reimbursable, in whole or in part, under Medicare, Medicaid or other federal healthcare programs. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act;

- The federal false claims and civil monetary penalties laws, including the False Claims Act, which prohibit any person or entity from, among other things, knowingly presenting, or causing to be presented, a false, fictitious or fraudulent claim for payment to, or approval by, the federal government or knowingly making, using or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government;

- The federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), which prohibits, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services;

- The Physician Payments Sunshine Act, which imposed, among other things, new annual reporting requirements for covered manufacturers for certain payments and "transfers of value" provided to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (HITECH), and their respective implementing regulations, impose specified requirements relating to the privacy, security and transmission of individually identifiable health information held by covered entities and their business associates; 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.

If our operations are found to be in violation of any of such laws or any other governmental regulations that apply to us, we may be subject to penalties, including, without limitation, administrative, civil and criminal penalties, damages, fines, disgorgement, contractual damages, reputational harm, diminished profits and future earnings, the curtailment or restructuring of our operations, exclusion from participation in federal and state healthcare programs and individual imprisonment, any of which could adversely affect our ability to operate our business and our financial results.

To the extent that any of our product candidates, once approved, are sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or other transfers of value to healthcare professionals.

***Coverage and Reimbursement***

Significant uncertainty exists as to the coverage and reimbursement status of any pharmaceutical or biological product for which we obtain regulatory approval. In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products. Sales of any product candidates for which we receive regulatory approval for commercial sale will therefore depend, in part, on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government authorities, managed care providers, private health insurers and other organizations.

The process for determining whether a third-party payor will provide coverage for a pharmaceutical or biological product typically is separate from the process for setting the price of such product or for establishing the reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the FDA-approved products for a particular indication. A decision by a third-party payor not to cover our product candidates could reduce physician utilization of our products once approved and have a material adverse effect on our sales, results of operations and financial condition. Moreover, a third-party payor's decision to provide coverage for a pharmaceutical or biological product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. In addition, coverage and reimbursement for new products can differ significantly from payor to payor. One third-party payor's decision to cover a particular medical product or service does not ensure that other payors will also provide coverage for the medical product or service, or will provide coverage at an adequate reimbursement rate. As a result, the coverage determination process will require us to provide scientific and clinical support for the use of our products to each payor separately and will be a time consuming process.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of pharmaceutical or biological products have been a focus in this effort. Third-party payors are increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost-effectiveness of pharmaceutical products, biological products, medical devices and medical services, in addition to questioning safety and efficacy. If these third-party payors do not consider our product candidates to be cost-effective compared to other available therapies, they may not cover our products after FDA approval or, if they do, the level of payment may not be sufficient to allow us to sell our products at a profit.

***Healthcare Reform***

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medical products. For example, in March 2010, the Affordable Care Act was enacted, which, among other things, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program; introduced a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected; extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care plans; imposed mandatory discounts for certain Medicare Part D beneficiaries as a condition for manufacturers' outpatient drugs coverage under Medicare Part D; subjected drug manufacturers to new annual fees based on pharmaceutical companies' share of sales to federal healthcare programs, and created a new

Patient Centered Outcomes Research Institute to oversee, identify priorities in and conduct comparative clinical effectiveness research, along with funding for such research.

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

In addition, the Budget Control Act of 2011 and the Bipartisan Budget Act of 2015 led to aggregate reductions of Medicare payments to providers of up to 2% per fiscal year that will remain in effect through 2025 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in limited coverage and reimbursement and reduced demand for our products, once approved, or additional pricing pressures.

**Employees**

As of December 31, 2015, we had 33 total employees, all of whom were full-time and 28 of whom were primarily engaged in research and development activities.

**Facilities**

We currently lease a total of approximately 22,135 square feet of office and research and development facilities in Burlingame, California. Our lease expires in 2021. We are currently exploring alternatives which would provide us with additional space to accommodate our anticipated growth.

**Legal Proceedings**

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

# MANAGEMENT

## Executive Officers and Directors

The following table sets forth information regarding our executive officers and directors as of December 31, 2015:

| NAME | AGE | POSITION(S) |
|---|---|---|
| **Executive Officers and Employee Directors** | | |
| Richard A. Miller, M.D. | 64 | President, Chief Executive Officer and Chairman of the Board |
| Leiv Lea | 62 | Chief Financial Officer |
| William B. Jones, Ph.D. | 50 | Vice President, Pharmaceutical Development |
| Erik J. Verner, Ph.D. | 51 | Vice President, Chemistry Research |
| **Key Employees** | | |
| Joseph J. Buggy, Ph.D. | 49 | Executive Vice President, Discovery Research |
| Ginna G. Laport, M.D. | 51 | Vice President, Clinical Development |
| Ian McCaffery, Ph.D. | 46 | Vice President, Translational Sciences |
| **Non-Employee Directors** | | |
| Elisha P. (Terry) Gould III[3] | 58 | Director |
| Steve E. Krognes[1][2] | 47 | Director |
| Peter Moldt, Ph.D.[1][3] | 56 | Director |
| Scott W. Morrison[1][2] | 58 | Director |
| Peter Thompson, M.D.[2] | 56 | Director |

(1) Member of the audit committee.

(2) Member of the compensation committee.

(3) Member of the nominating and corporate governance committee.

## Executive Officers and Employee Directors

***Richard A Miller, M.D.*** has served as our President and Chief Executive Officer since February 2014 and chairman of our board of directors since January 2014. From April 2012 to October 2014, Dr. Miller was Chairman and Chief Executive Officer of Graphea, Inc., a privately-held chemical company, which he founded. Dr. Miller served as Chief Commercialization Officer, Associate Dean and Research Professor in Chemistry at The University of Texas at Austin from September 2010 to December 2011. Dr. Miller founded Principia Biopharma Inc., a privately-held biopharmaceutical company, and served as its President and Chief Executive Officer and a member of its board of directors from January 2009 to February 2011. He served as President, Chief Executive Officer and Director of Pharmacyclics, Inc., a biopharmaceutical company, from 1991, when he co-founded the company, to 2008. At Pharmacyclics, Dr. Miller led the initial discovery and development efforts for ibrutinib. Dr. Miller was a co-founder, Vice President and Director of IDEC Pharmaceuticals Corporation, a biotechnology company that merged with Biogen, Inc. in June 2003, where he led research efforts on lymphoma leading to the development of rituximab. Dr. Miller has been Adjunct Clinical Professor of Medicine (Oncology) at Stanford University Medical Center since 1991. Dr. Miller received a B.A. in Chemistry from Franklin & Marshall College and an M.D. from the State University of New York Medical School. He is board certified in both Internal Medicine and Medical Oncology. We believe Dr. Miller's experience as an officer and director of pharmaceutical and biopharmaceutical companies provides him with the qualifications and skills to serve as a member of our board of directors.

***Leiv Lea*** has served as our Chief Financial Officer since November 2014. Mr. Lea was a financial consultant from 2009 to November 2014. From 1998 to 2008, Mr. Lea served as Chief Financial Officer of Pharmacyclics, Inc., a biopharmaceutical company. From 1996 to 1997, he was a financial consultant. From 1986 to 1996, Mr. Lea served as Chief Financial Officer of Margaux, Inc., a refrigeration equipment manufacturer. He received a B.S. in Agricultural Economics from the University of California, Davis and an M.B.A. from the Anderson School at the University of California, Los Angeles.

***William B. Jones, Ph.D.*** has served as our Vice President, Pharmaceutical Development since December 2014. Dr. Jones was Director of Global Regulatory Affairs in the oncology business unit of Sanofi US, LLC, a pharmaceutical company, from December 2012 to December 2014. From 2008 to March 2012, Dr. Jones was Director of Project Management & Regulatory at Pharmacyclics, Inc., a biopharmaceutical company. Dr. Jones served as Associate Director of Development for Plexxikon, Inc., a pharmaceutical company, from 2005 to 2007. From 2002 to 2005, he was Senior Project Manager at Vertex Pharmaceuticals, Inc., a biotechnology company. Dr. Jones received a B.S. and a Ph.D. in Chemistry from the University of Cincinnati and an M.B.A. from Babson College. He completed a post-doctoral fellowship at the University of Oxford.

***Erik J. Verner, Ph.D.*** has served as our Vice President, Chemistry Research since January 2015. From March 2011 to December 2014, Dr. Verner was Director of Chemistry for Principia Biopharma Inc., a biopharmaceutical company. Dr. Verner served as Director of Chemistry of Pharmacyclics, Inc., a biopharmaceutical company, from 2008 to February 2011, where he served as a principal scientist from 2006 to 2008. From 1996 to 2006, Dr. Verner was a principal scientist at Axys Pharmaceuticals, Inc. (formerly Arris Pharmaceuticals, Incorporated), a biotechnology company, and Celera Corporation, a subsidiary of Axys Pharmaceuticals, Inc. He was a senior scientist at Immunopharmaceutics, Inc., a biotechnology company, from 1993 to 1996. Dr. Verner received a B.S. in Chemistry from the University of Idaho and a Ph.D. in Organic Chemistry from the University of Pittsburgh.

**Key Employees**

***Joseph J. Buggy, Ph.D.*** has served as our Executive Vice President, Discovery Research since November 2014 and previously served as a member of our board of directors from January 2014, when he co-founded the Company, to November 2014. From 2006 to August 2013, Dr. Buggy held several positions with Pharmacyclics, Inc., a biopharmaceutical company, including, most recently, Vice President, Research. From 2001 to 2006, Dr. Buggy was with Celera Genomics Corporation, a biotechnology company, where he was Director and, prior to that, Principal Scientist. Dr. Buggy served as Senior Scientist and, later, Group Leader at Axys Pharmaceuticals, Inc., a biotechnology company, from 1996 to 2001. From 1993 to 1996, Dr. Buggy was Scientist for Bayer Pharmaceuticals Corporation, a subsidiary of Bayer HealthCare AG, a health care company. Dr. Buggy received a B.S. in Microbiology from the University of Pittsburgh and a Ph.D. in Molecular, Cellular, and Development Biology from Indiana University.

***Ginna G. Laport, M.D.*** has served as our Vice President, Clinical Development since October 2015. From 2001 to October 2015, Dr. Laport held various roles at the Stanford University School of Medicine, including Assistant Professor in the Division of Blood and Marrow Transplantation, Associate Professor and, most recently, Professor of Blood and Marrow Transplantation. From 1999 to 2001, Dr. Laport was Assistant Professor in Hematology/BMT at the University of Pennsylvania and Instructor in Hematology/Oncology at the University of Chicago. She received a B.A. in Psychology from Baylor University and an M.D. from the University of Texas. Dr. Laport completed a residency in Internal Medicine and fellowship in Hematology/Oncology at The University of Chicago.

***Ian McCaffery, Ph.D.*** has served as our Vice President, Translational Sciences since December 2015. Prior to joining Corvus Pharmaceuticals, Dr. McCaffery held the position of Head and Associate

Director, Companion Diagnostic Development with Genentech, Inc., a biopharmaceutical development company and member of the Roche Group from June 2012 to December 2015. Dr. McCaffery held various positions at Amgen Inc. from October 2004 to June 2012, including Director of Medical Sciences and Oncology Biomarker Therapeutic Area Leader from March 2009 to June 2012, Principal Scientist from September 2006 to March 2009 and Senior Scientist from October 2004 to September 2006. From January 2001 to October 2004, Dr. McCaffery held various roles at Celera Genomics Corporation, serving as Manager, Scientists from November 2002 to October 2004 and Senior Scientist from January 2001 to November 2002 in the Department of Protein Therapeutics. Dr. McCaffery received a B.S. in Biochemistry from the University of Newcastle-Upon-Tyne, United Kingdom and a Ph.D. in Biochemistry and Molecular Biology from the University of Leeds, United Kingdom.

**Directors**

***Elisha P. (Terry) Gould III*** has served as a member of our board of directors since November 2014. Mr. Gould is currently a Partner and Head of Venture/Growth Equity Investments at Adams Street Partners, LLC, a private equity firm, and has been employed by Adams Street Partners or its predecessor organizations since 1994. Since 2006, Mr. Gould has served on the board of directors of OncoMed Pharmaceuticals, Inc., a biotechnology company. He also currently serves on the boards of directors of several private companies. Mr. Gould received a A.B. in Engineering Science from Dartmouth College and an M.B.A. from the Stanford University Graduate School of Business. We believe Mr. Gould's experience in the venture capital industry and as director of a pharmaceutical company provides him with the qualifications and skills to serve as a member of our board of directors.

***Steve E. Krognes*** has served as a member of our board of directors since January 2016. Mr. Krognes has served as Chief Financial Officer of Denali Therapeutics Inc., a biotechnology company, since October 2015. From 2009 to September 2015, Mr. Krognes served as Senior Vice President and Chief Financial Officer at Genentech, Inc., a biotechnology company. From 2004 to 2009, he was Head of Mergers & Acquisitions at Roche Holding AG, a biotechnology company. Mr. Krognes served as Director of Mergers & Acquisitions at Danske Bank A/S, a Danish bank, from 2002 to 2003. He was a Venture Capitalist with Pylonia Ventures, a Norwegian venture investments company, from 2000 to 2002. From 1996 to 2000, he was a Management Consultant for McKinsey & Company, a consulting firm. Mr. Krognes has served as a member of the board of directors of the California Academy of Sciences, a scientific and educational institution, since June 2014. He was a member of the board of directors and board executive committee of the California Life Sciences Association, an industry organization, from September 2010 to September 2015. Mr. Krognes received a B.S. in Economics from the Wharton School of the University of Pennsylvania and an M.B.A. from Harvard Business School. We believe Mr. Krognes's experience in finance and the biotechnology industry provides him with the qualifications and skills to serve as a member of our board of directors.

***Peter Moldt, Ph.D.*** has served as a member of our board of directors since January 2015. Since May 2012, Dr. Moldt has been employed as a Partner with Novo Ventures (US) Inc., which provides certain consultancy services to Novo A/S, a Danish limited liability company that manages investments and financial assets. From 2009 to May 2012, Dr. Moldt was employed as a Partner with Novo A/S. Dr. Moldt founded and served as Chief Executive Officer of Curalogic A/S, a publicly listed Danish pharmaceutical company, from 2004 through its liquidation in 2009. From 2000 to 2004, Dr. Moldt was Chief Operating Officer of 7TM Pharma A/S, a private biotechnology company, which he also co-founded. For the prior eleven years, Dr. Moldt held various positions with NeuroSearch A/S, a publicly listed Danish biotechnology company, including Director of Drug Development where he was responsible for all aspects of preclinical and clinical drug development. Dr. Moldt currently serves on the boards of directors of several private biotechnology and biopharmaceutical companies. He received an M.Sc. and a Ph.D. in Pharmacy and Medicinal Chemistry from the Royal Danish School of Pharmacy. He also holds a post doctorate at Yale University in the Department of Organic Chemistry. We believe Dr. Moldt is qualified to serve on our board of directors because of his extensive industry

experience, his experience serving on the board of directors of numerous biopharmaceutical and biotechnology companies and his experience with venture capital investments.

***Scott W. Morrison*** has served as a member of our board of directors since December 2015. From 1996 to December 2015, Mr. Morrison was a Partner with Ernst & Young LLP, a public accounting firm, where he also served as U.S. Life Sciences Leader from 2002 to December 2015. Since January 2016, he has served on the board of directors and as chair of the audit committee of each of Audentes Therapeutics, Inc., a biotechnology company, and Global Blood Therapeutics, Inc., a biopharmaceutical company. Mr. Morrison has held roles on the boards of directors of numerous life sciences industry organizations. Since 1999, he has served on the board of directors of the Biotechnology Institute, a nonprofit organization, where has also served on the audit committee since 2002. Mr. Morrison has previously served on the boards of directors of the Life Sciences Foundation, a biotechnology nonprofit organization, the Bay Area Biosciences Association, a 501(c)(3) organization, and the Emerging Companies Section of the Biotechnology Industry Organization, a trade organization. He received a B.S. in Business Administration from the University of California-Berkeley and is a certified public accountant (inactive). We believe Mr. Morrison's experience in public accounting and the life sciences industry provides him with the qualifications and skills to serve as a member of our board of directors.

***Peter Thompson, M.D.*** has served as a member of our board of directors since November 2014. Dr. Thompson currently serves as a Private Equity Partner for OrbiMed Advisors LLC, an investment firm focused on the healthcare sector, where he previously served as Venture Partner since joining in September 2010. Dr. Thompson has served as a director of Adaptimmune Therapeutics plc, a biopharmaceutical company, since September 2014, ProNAi Therapeutics, Inc., a clinical stage oncology company, since April 2014 and Response Biomedical Corp., a diagnostic technology company, since August 2010. Dr. Thompson currently serves on the boards of directors of several private companies. He is a board-certified internist and oncologist and has served as Affiliate Professor of Neurosurgery at the University of Washington since January 2010. Dr. Thompson co-founded and served as the Chief Executive Officer of Trubion Pharmaceuticals, Inc., a biopharmaceutical company, from 2002 to 2009. He was a medical staff fellow at the National Cancer Institute from 1985 to 1992. Dr. Thompson holds a Sc. B. in Molecular Biology and Mathematics from Brown University and an M.D. from Brown University Medical School. We believe Dr. Thompson's venture capital and management experience in the pharmaceuticals industry provides him with the qualifications and skills to serve as a member of our board of directors.

**Board Composition**

***Director Independence***

Our board of directors currently consists of five members. Our board of directors has determined that all of our directors, other than Dr. Miller, qualify as independent directors in accordance with The NASDAQ Stock Market LLC (NASDAQ) listing requirements. Dr. Miller is not considered independent because he is an employee of the Company. NASDAQ's independence definition includes a series of objective tests, such as that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his or her family members has engaged in various types of business dealings with us. In addition, as required by NASDAQ rules, our board of directors has made a subjective determination as to each independent director that no relationships exist that, in the opinion of our board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In making these determinations, our board of directors reviewed and discussed information provided by the directors and us with regard to each director's business and personal activities and relationships as they may relate to us and our management. There are no family relationships among any of our directors or executive officers.

***Classified Board of Directors***

In accordance with our amended and restated certificate of incorporation to be in effect immediately prior to the consummation of this offering, our board of directors will be divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Effective upon the consummation of this offering, we expect that our directors will be divided among the three classes as follows:

- the Class I directors will be Dr. Miller and Dr. Moldt, and their terms will expire at the annual meeting of stockholders to be held in 2017;
- the Class II director will be Mr. Morrison and Mr. Krognes and their terms will expire at the annual meeting of stockholders to be held in 2018; and
- the Class III directors will be Mr. Gould and Dr. Thompson, and their terms will expire at the annual meeting of stockholders to be held in 2019.

Our amended and restated certificate of incorporation will provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control of the Company.

***Voting Arrangements***

The election of the members of our board of directors is governed by the amended and restated voting agreement, as amended, that we entered into with certain holders of our common stock and certain holders of our convertible preferred stock and the related provisions of our amended and restated certificate of incorporation. The holders of our common stock and preferred stock who are parties to our voting agreement are obligated to vote for certain designees identified therein. Pursuant to this agreement, our common stockholders designated Dr. Miller to serve on our board of directors; OrbiMed Private Investments V, LP designated Dr. Thompson to serve on our board of directors; Adams Street 2011 Direct Fund LP, Adams Street 2012 Direct Fund LP, Adams Street 2013 Direct Fund LP and Adams Street 2014 Direct Fund LP designated Mr. Gould to serve on our board of directors; and Novo A/S designated Dr. Moldt to serve on our board of directors. The provisions of our voting agreement will terminate upon the consummation of this offering and our certificate of incorporation will be amended and restated, after which there will be no further contractual obligations or charter provisions regarding the election of our directors. Our directors hold office until their successors have been elected and qualified or appointed, or the earlier of their death, resignation or removal.

**Leadership Structure of the Board**

Our bylaws and corporate governance guidelines provide our board of directors with flexibility to combine or separate the positions of Chairman of the board of directors and Chief Executive Officer and/or the implementation of a lead director in accordance with its determination that utilizing one or the other structure would be in our best interests. Dr. Miller currently serves as the Chairman of our board of directors. In that role, Dr. Miller presides over the meetings of our board of directors.

Our board of directors has concluded that our current leadership structure is appropriate at this time. However, our board of directors will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

**Role of Board in Risk Oversight Process**

Risk assessment and oversight are an integral part of our governance and management processes. Our board of directors encourages management to promote a culture that incorporates risk management into our corporate strategy and day-to-day business operations. Management discusses strategic and operational risks with the board of directors at regular board meetings as part of management presentations that focus on particular business functions, operations or strategies, and presents the steps taken by management to mitigate or eliminate such risks.

Our board of directors does not have a standing risk management committee, but rather administers this oversight function directly through our board of directors as a whole, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure. Our audit committee is responsible for overseeing our major financial risk exposures and the steps our management has taken to monitor and control these exposures. The audit committee also monitors compliance with legal and regulatory requirements and considers and approves or disapproves any related person transactions. Our nominating and governance committee monitors the effectiveness of our corporate governance guidelines. Our compensation committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking.

**Board Committees**

Our board of directors has the following standing committees: an audit committee, a compensation committee and a nominating and corporate governance committee. Our board of directors may establish other committees to facilitate the management of our business. The composition and functions of each committee are described below.

***Audit Committee***

Our audit committee oversees our corporate accounting and financial reporting process. Among other matters, the audit committee:

- appoints our independent registered public accounting firm;
- evaluates the independent registered public accounting firm's qualifications, independence and performance;
- determines the engagement of the independent registered public accounting firm;
- reviews and approves the scope of the annual audit and the audit fee;
- discusses with management and the independent registered public accounting firm the results of the annual audit and the review of our quarterly financial statements;
- approves the retention of the independent registered public accounting firm to perform any proposed permissible audit and non-audit services;
- monitors the rotation of partners of the independent registered public accounting firm on our engagement team in accordance with requirements established by the SEC;
- is responsible for reviewing our financial statements and our management's discussion and analysis of financial condition and results of operations to be included in our annual and quarterly reports to be filed with the SEC;
- reviews our critical accounting policies and estimates; and
- annually reviews the audit committee charter and the audit committee's performance.

The current members of our audit committee are Mr. Krognes, Dr. Moldt and Mr. Morrison. Mr. Morrison serves as the chairperson of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and NASDAQ. Our board of directors has determined that Mr. Morrison is an audit committee financial expert as defined under the applicable rules of the SEC and has the requisite financial sophistication as defined under the applicable rules and regulations of NASDAQ. Under the rules of the SEC, members of the audit committee must also meet heightened independence standards. However, so long as at least one member of the audit committee satisfies the heightened audit committee independence standards on the date of the effectiveness of the registration statement of which this prospectus forms a part, a majority of members of the audit committee may be exempt from the heightened audit committee independence standards for 90 days from such date and a minority of members of the audit committee may be exempt from the heightened audit committee independence standards for one year from such date. Our board of directors has determined that each of the members of our audit committee is independent under the applicable rules of NASDAQ. The audit committee operates under a written charter that satisfies the applicable standards of the SEC and NASDAQ.

***Compensation Committee***

Our compensation committee reviews and recommends policies relating to compensation and benefits of our officers and employees. The compensation committee reviews and sets or makes recommendations to our board of directors regarding the compensation of our Chief Executive Officer and other executive officers. The compensation committee also reviews and makes recommendations to our board of directors regarding director compensation. In addition, the compensation committee reviews and approves or makes recommendations to our board of directors regarding our incentive compensation and equity-based plans. The compensation committee periodically reviews and evaluates the performance of the compensation committee and its members and must annually review and reassess the compensation committee charter and recommend any changes to our board of directors. The current members of our compensation committee are Mr. Krognes, Mr. Morrison and Dr. Thompson. Dr. Thompson serves as the chairperson of the committee. Each of the members of our compensation committee is independent under the applicable rules and regulations of NASDAQ and is an "outside director" as that term is defined in Section 162(m) of the Internal Revenue Code of 1986, as amended (162(m)). Each of Mr. Krognes and Mr. Morrison is also a "non-employee director" as defined in Rule 16b-3 under the Exchange Act. Mr. Thompson will not be a "non-employee director" if OrbiMed Private Investments V, LP continues to own more than ten percent of our capital stock after this offering. In such event and until such time as the compensation committee is comprised solely of "non-employee directors," equity compensation awards to directors and executive officers will be approved by the Board. The compensation committee operates under a written charter.

***Nominating and Corporate Governance Committee***

The nominating and corporate governance committee is responsible for making recommendations to our board of directors regarding candidates for directorships and the size and composition of our board of directors. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies and reporting and making recommendations to our board of directors concerning governance matters. The current members of our nominating and corporate governance committee are Mr. Gould and Dr. Moldt. Mr. Gould serves as the chairman of the committee. Each of the members of our nominating and corporate governance committee is an independent director under the applicable rules and regulations of NASDAQ relating to nominating and corporate governance committee independence. The nominating and corporate governance committee operates under a written charter.

**Compensation Committee Interlocks and Insider Participation**

None of the members of our compensation committee has at any time been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers on our board of directors or compensation committee.

**Board Diversity**

Upon consummation of this offering, our nominating and corporate governance committee will be responsible for reviewing with the board of directors, on an annual basis, the appropriate characteristics, skills and experience required for the board of directors as a whole and its individual members. In evaluating the suitability of individual candidates (both new candidates and current members), the nominating and corporate governance committee, in recommending candidates for election, and the board of directors, in approving (and, in the case of vacancies, appointing) such candidates, may take into account many factors, including, but not limited to, the following:

- diversity of personal and professional background, perspective and experience;
- personal and professional integrity, ethics and values;
- experience in corporate management, operations or finance, such as serving as an officer or former officer of a publicly held company, and a general understanding of marketing, finance and other elements relevant to the success of a publicly-traded company in today's business environment;
- experience relevant to our industry and relevant social policy concerns;
- experience as a board member or executive officer of another publicly held company;
- relevant academic expertise or other proficiency in an area of the our operations;
- practical and mature business judgment, including ability to make independent analytical inquiries;
- promotion of a diversity of business or career experience relevant to our success; and
- any other relevant qualifications, attributes or skills.

Currently, our board of directors evaluates, and following the consummation of this offering will evaluate, each individual in the context of the board of directors as a whole, with the objective of assembling a group that can best maximize the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas.

**Code of Business Conduct and Ethics**

We have adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. Following the consummation of this offering, the code of business conduct and ethics will be available on our website. We expect that any amendments to the code, or any waivers of its requirements, will be disclosed on our website.

**Limitation on Liability and Indemnification Matters**

Our amended and restated certificate of incorporation, which will become effective immediately prior to the consummation of this offering, will contain provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our

directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which the director derived an improper personal benefit.

Each of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective immediately prior to the consummation of this offering, will provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our amended and restated bylaws will also obligate us to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses, including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damages.

**Director Compensation**

During the year ended December 31, 2015, we did not pay cash compensation to any non-employee members of our board of directors. We also did not grant our non-employee directors any stock options or other equity awards except for Mr. Morrison, who we granted an option to purchase 30,000 shares of our common stock on December 31, 2015. The option vests and becomes exerciseable in equal installments on each of the first three anniversaries of the date of grant, subject to Mr. Morrison's continued service to the Company through the applicable vesting date. In addition, we reimburse our directors for travel and other necessary business expenses incurred in the performance of their services for us.

***Director Compensation Table***

The following table sets forth information for the year ended December 31, 2015 regarding the compensation awarded to, earned by or paid to our non-employee directors:

| Name | Fees Earned or Paid in Cash ($) | Option Awards ($)[1] | Total ($) |
|---|---|---|---|
| Elisha P. (Terry) Gould III | $ — | $ — | $ — |
| Peter Moldt, Ph.D. | $ — | $ — | $ — |
| Scott W. Morrison | $ — | $ 330,451 | $ 330,451 |
| Peter Thompson, M.D. | $ — | $ — | $ — |

(1) Amounts reported in the Option Awards column represent the grant date fair values of stock options granted under our 2014 Equity Incentive Plan, as amended, calculated in accordance with Financial Account Standards Board (FASB) ASC Topic 718, *Compensation—Stock Compensation*. For a discussion of the assumptions used to calculate the value of our stock options, see Note 2 to our audited financial statements included elsewhere in this prospectus. As of December 31, 2015, none of our non-employee directors held any stock options or other equity awards other than Mr. Morrison who held an option to purchase 30,000 shares of our common stock.

In December 2015, our board of directors approved a compensation policy for our non-employee directors to be effective in connection with the consummation of this offering (Post-IPO Director Compensation Program). Pursuant to the Post-IPO Director Compensation Program, our non-employee directors will receive cash compensation, paid quarterly in arrears, as follows:

- Each non-employee director will receive an annual cash retainer in the amount of $35,000.
- The chairperson of the board will receive additional annual cash compensation of $30,000 for such chairperson's service on the board.
- The chairperson of the audit committee will receive additional annual cash compensation in the amount of $20,000 for such chairperson's service on the audit committee. Each non-chairperson member of the audit committee will receive additional annual cash compensation in the amount of $10,000 for such member's service on the audit committee.
- The chairperson of the compensation committee will receive additional annual cash compensation in the amount of $12,000 for such chairperson's service on the compensation committee. Each non-chairperson member of the compensation committee will receive additional annual cash compensation in the amount of $6,000 for such member's service on the compensation committee.
- The chairperson of the nominating and corporate governance committee will receive additional annual cash compensation in the amount of $8,000 for such chairperson's service on the nominating and corporate governance committee. Each non-chairperson member of the nominating and corporate governance committee will receive additional annual cash compensation in the amount of $4,000 for such member's service on the nominating and corporate governance committee.

In addition, under the Post-IPO Director Compensation Program, each non-employee director who is elected or appointed to our board of directors after the completion of this offering will automatically be granted an option to purchase 30,000 shares of our common stock upon the director's initial appointment or election to our board of directors, referred to as the Initial Grant. In addition, each non-employee director who is serving on our board of directors immediately following an annual stockholder's meeting will automatically be granted an annual option to purchase 15,000 shares of our common stock on the date of such annual stockholder's meeting, referred to as the Annual Grant. The Initial Grant will vest as to 1/3rd of the shares subject to the Initial Grant on each anniversary of the applicable grant date, subject to continued service through the applicable vesting date. The Annual

Grant will vest as to all of the shares subject to the Annual Grant on the earlier of the first anniversary of the applicable grant date or the next annual stockholders' meeting, subject to continued service through the vesting date. All equity awards, including any Initial Grants and Annual Grants, held by our non-employee directors will vest in full immediately prior to the occurrence of a change in control.

In connection with this offering, our board of directors approved the grant of an option to purchase 30,000 shares of our common stock to automatically be made to each of Mr. Gould, Mr. Krognes and Dr. Thompson effective upon the pricing of this offering. Each option will have an exercise price per share equal to the per share price to the public set forth on the cover to this prospectus and vests and becomes exercisable in equal installments on each of the first three anniversaries of the closing of this offering, subject to continued service through the applicable vesting date. The options are otherwise subject to the terms of the 2014 Equity Incentive Award Plan and the Company's standard form of option agreement.

## EXECUTIVE COMPENSATION

### Overview

This section discusses the material components of the executive compensation program for our executive officers who are named in the "2015 Summary Compensation Table" below. In 2015, our "named executive officers" and their positions were as follows:

- Richard A. Miller, M.D., President and Chief Executive Officer;
- Leiv Lea, Chief Financial Officer;
- William B. Jones, Ph.D., Vice President, Pharmaceutical Development; and
- Erik J. Verner, Ph.D., Vice President, Chemistry Research.

### 2015 Summary Compensation Table

The following table shows information regarding the compensation of our named executive officers for services performed in the years ended December 31, 2014 and December 31, 2015.

| Name and Principal Position | Year | Salary ($) | Bonus ($) | Option Awards ($)[1] | Total ($) |
|---|---|---|---|---|---|
| Richard A. Miller, M.D. | 2015 | $ 252,769 | $ — | $ 500,097 | $ 752,866 |
| *President and Chief Executive Officer* | 2014 | $ 20,215 | $ — | $ — | $ 20,215 |
| Leiv Lea | 2015 | $ 225,865 | $ — | $ 62,512 | $ 288,377 |
| *Chief Financial Officer and Treasurer* | 2014 | $ 18,173 | $ — | $ — | $ 18,173 |
| William B. Jones, Ph.D. | 2015 | $ 187,466 | $ — | $ 170,064 | $ 357,530 |
| *Vice President, Pharmaceutical Development* | 2014 | $ 5,692 | $ — | $ — | $ 5,692 |
| Erik J. Verner, Ph.D.[2] | 2015 | $ 199,230 | $ — | $ 170,064 | $ 369,294 |
| *Vice President, Chemistry Research* | 2014 | $ — | $ — | $ — | $ — |

(1) Amounts reported in the Option Awards column represent the grant date fair values of stock options granted under our 2014 Equity Incentive Plan, as amended, calculated in accordance with Financial Account Standards Board (FASB) ASC Topic 718, *Compensation—Stock Compensation*. For a discussion of the assumptions used to calculate the value of our stock options, see Note 2 to our audited financial statements included elsewhere in this prospectus.

(2) Dr. Verner commenced employment with us as our Vice President, Chemistry Research effective January 5, 2015.

### Narrative Disclosure to Summary Compensation Table

#### *Base Salary*

The named executive officers receive a base salary to compensate them for services rendered to us. The base salary payable to each named executive officer is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. The actual base salaries paid to each named executive officer for 2015 are set forth in the 2015 Summary Compensation Table above. For 2015, Dr. Miller's annual base salary rate was $250,000, Mr. Lea's annual base salary rate was $225,000, Dr. Jones' annual base salary rate was $185,000 and Dr. Verner's annual base salary rate was $200,000.

In light of the increased responsibilities of our named executive officers following the completion of this offering, our board of directors has approved an increase in the base salary of our named executive officers effective as of the consummation of this offering as follows:

| Name | New Annual Base Salary |
|---|---|
| Richard A. Miller, M.D. | $ 300,000 |
| Leiv Lea | $ 275,000 |
| William B. Jones, Ph.D. | $ 250,000 |
| Erik J. Verner, Ph.D. | $ 235,000 |

***Annual Cash Bonuses***

Although we do not have a formal performance-based cash bonus plan, our board of directors may grant annual discretionary bonuses based upon the achievement of specific individual and/or Company-wide performance goals. We did not grant any cash bonuses to our named executive officers during, or related to performance in, fiscal year 2015.

***Equity Compensation***

We have historically granted stock options under our 2014 Equity Incentive Plan, as amended, to our directors and employees (including our named executive officers). Our board of directors has approved stock option grants to automatically be made to each of our named executive officers effective upon the pricing of this offering as set forth in the table below.

| Name | Shares Underlying Option Grant |
|---|---|
| Richard A. Miller, M.D. | 500,000 |
| Leiv Lea | 60,000 |
| William B. Jones, Ph.D. | 60,000 |
| Erik J. Verner, Ph.D. | 60,000 |

Each option will have an exercise price per share equal to the per share price to the public set forth on the cover to this prospectus. Each option vests and becomes exercisable in 48 substantially equal monthly installments from the closing of this offering, subject to continued service through the applicable vesting date. The options are otherwise subject to the terms of the 2014 Equity Incentive Plan and the Company's standard form of option agreement.

In connection with this offering, we adopted our 2016 Equity Incentive Award Plan in order to facilitate the grant of cash and equity incentives to directors, employees (including our named executive officers) and consultants of the Company and certain of its affiliates and to enable the Company and certain of its affiliates to obtain and retain services of these individuals, which is essential to our long-term success. The 2016 Equity Incentive Award Plan will become effective immediately prior to the consummation of this offering. For additional information about the 2016 Equity Incentive Award Plan, please see the section entitled "Equity Compensation Plans and Other Benefit Plans—2016 Equity Incentive Award Plan" below.

***Other Elements of Compensation***

***Retirement Plan***

We maintain a 401(k) retirement savings plan for the benefit of our employees, including our named executive officers, who satisfy certain eligibility requirements. Under the 401(k) plan, eligible employees may elect to defer a portion of their compensation, within the limits prescribed by the Internal Revenue Code, on a pre-tax or after-tax (Roth) basis through contributions to the 401(k) plan. We believe that providing a vehicle for tax-deferred retirement savings though our 401(k) plan adds to

the overall desirability of our executive compensation package and further incentivizes our employees, including our named executive officers, in accordance with our compensation policies.

***Employee Benefits and Perquisites***

All of our full-time employees, including our named executive officers, are eligible to participate in our health and welfare plans, including medical, dental and vision benefits, medical flexible spending accounts, short-term and long-term disability insurance, and life insurance. We do not provide our named executive officers with perquisites or other personal benefits, other than the retirement, health and welfare benefits that apply uniformly to all of our employees.

***No Tax Gross-Ups***

We are not required to make gross-up payments to cover our named executive officers' personal income taxes that may pertain to any of the compensation or perquisites paid or provided by us.

**Outstanding Equity Awards at 2015 Fiscal Year-End**

The following table provides information about outstanding stock options and stock awards held by each of our named executive officers as of December 31, 2015. All awards reflected were granted under the 2014 Equity Incentive Plan, as amended.

| | Option Awards | | | | | Stock Awards | |
|---|---|---|---|---|---|---|---|
| | | Number of Securities Underlying Unexercised Options (#) | | | | Number of Shares of Stock That Have Not Vested (#) | Market Value of Shares of Stock That Have Not Vested ($)[1] |
| Name | Vesting Commencement Date | Exercisable | Unexercisable | Option Exercise Price ($) | Option Expiration Date | | |
| Richard A. Miller, M.D. | —[2] | — | — | $ — | — | 442,000[2] | $ 6,979,180 |
| | 9/16/2015[3] | — | — | $ — | — | 150,000 | $ 2,368,500 |
| Leiv Lea | —[2] | — | — | $ — | — | 88,400[2] | $ 1,395,836 |
| | 9/16/2015[3] | — | — | $ — | — | 18,750 | $ 296,063 |
| William B. Jones, Ph.D. | 12/22/14[4] | — | — | $ — | — | 47,830 | $ 755,236 |
| | 7/1/2015[4] | — | — | $ — | — | 50,000 | $ 789,500 |
| Erik J. Verner, Ph.D. | 1/26/15[4] | — | — | $ — | — | 63,773 | $ 1,006,976 |
| | 7/1/2015[5] | — | 50,000 | $ 0.28 | 7/1/2025 | — | $ — |

(1) Based on the per share fair market value of our common stock as of December 31, 2015 ($15.79), as determined by our board of directors.

(2) Represents shares of our common stock acquired by the named executive officer (directly or through a trust) for fair market value on the date of purchase, as determined by our board of directors, which were later subjected to vesting conditions. The shares of common stock held by the named executive officers (directly or through a trust) vests in substantially equal monthly installments through November 26, 2017.

(3) Represents shares of our common stock acquired upon the early exercise of stock options by the applicable holder that are subject to a right of repurchase in favor of the Company in the event the holder terminates employment with us prior to vesting. The shares vest in 48 substantially equal monthly installments from the vesting commencement date subject to the holder's continued service to us through the vesting date.

(4) Represents shares of our common stock acquired upon the early exercise of stock options by such named executive officer Dr. Verner that are subject to a right of repurchase in favor of the Company in the event such named executive officer terminates employment with us prior to vesting. The shares acquired upon exercise vest with respect to 25% of the shares initially subject to the option on the first anniversary of the vesting commencement date and with respect to 1/48$^{th}$ of the shares initially subject to the option on each monthly anniversary of the vesting commencement date thereafter such that the shares will be fully vested on the fourth anniversary of the vesting commencement date, in each case, subject to such named executive officer's continued service to us through the vesting date.

(5) The stock option vests and becomes exercisable with respect to 25% of the shares initially subject to the option on the first anniversary of the vesting commencement date and with respect to 1/48$^{th}$ of the shares initially subject to the option on each monthly anniversary of the vesting commencement date thereafter such that the option will be fully vested and exercisable on the fourth anniversary of the vesting commencement date, in each case, subject to such named executive officer's continued service to us through the vesting date.

**Employee Arrangements with our Named Executive Officers**

We entered into written employment agreements with Dr. Miller and Mr. Lea on November 26, 2014, which were amended and restated in December 2015, and change in control and severance agreements with Dr. Jones and Dr. Verner on December 23, 2015. Pursuant to their respective agreements, each named executive officer is entitled to severance payments upon the occurrence of certain terminations of employment.

Pursuant to Dr. Miller's and Mr. Lea's employment agreements, as amended and restated, and Dr. Jones' and Dr. Verner's change in control and severance agreements, in the event that the executive's employment is terminated by us other than for "cause", or by the executive for "good reason" (each as defined below) at any time other than during the twelve month period immediately following a change in control of the Company, the executive is entitled to receive (i) severance payments in an amount equal to nine, or, in the case of Dr. Miller, twelve, months of his then-existing base salary; and (ii) continued healthcare coverage for the earlier of nine, or, in the case of Dr. Miller, twelve, months, or the date the executive and his dependents, if any, become eligible for healthcare coverage under another employer's plan(s). In addition, each outstanding equity award that vests subject to the executive's continued employment will automatically become vested, and, if applicable, all restrictions thereon will lapse, in each case, with respect to (i) in the case of Mr. Lea Dr. Jones and Dr. Verner, the number of shares that would have vested in the nine month period following such termination had the executive remained employed or (ii) in the case of Dr. Miller, (a) 100% of the shares subject thereto if the termination occurs prior to the second anniversary of the effective date of the amended and restated agreement or (b) the number of shares that would have vested in the twelve month period following such termination had Dr. Miller remained employed if the termination occurs after the second anniversary of the effective date of the amended and restated agreement.

Furthermore, pursuant to Dr. Miller's and Mr. Lea's employment agreements, as amended and restated, and Dr. Jones' and Dr. Verner's change in control and severance agreements, in the event that the executive's employment is terminated by us other than for "cause", or by the executive for "good reason" (each as defined below) during the twelve month period immediately following a change in control of the Company, the executive is entitled to receive (i) severance payments in an amount equal to the sum of twelve, or in the case of Dr. Miller, eighteen, months of his then-existing base salary plus 100%, or, in the case of Dr. Miller, 150%, of his target bonus opportunity; and (ii) continued healthcare coverage until the earlier of twelve, or in the case of Dr. Miller, eighteen, months, or the date the executive and his dependents, if any, become eligible for healthcare coverage under another employer's plan(s). In addition, each outstanding equity award that vests subject to executive's continued employment will automatically become vested, and, if applicable, all restrictions thereon will lapse, in each case, with respect to 100% of the shares subject thereto.

Any such severance payments and accelerated vesting are subject to the executive's timely execution and non-revocation of a general release of claims against us and our affiliates.

With respect to each of Dr. Miller and Mr. Lea's employment agreements and Dr. Jones' and Dr. Verner's change in control and severance agreements:

- "cause" means, subject to certain notice requirements and cure rights, the occurrence of any of the following events, as determined by our board of directors or a committee designated by our board, in its sole discretion: the executive's (i) commission of any felony or any crime involving fraud, dishonesty, or moral turpitude under the laws of the United States or any state thereof; (ii) attempted commission of, or participation in, a fraud or act of dishonesty against us;

(iii) intentional, material violation of any contract or agreement with us or of any statutory duty owed to us; (iv) unauthorized use or disclosure of our confidential information or trade secrets; (v) gross misconduct; or, with respect to Dr. Miller's employment agreement, (vi) willful failure to perform his duties and responsibilities to us.

- "good reason" means, subject to certain notice requirements and cure rights, the executive's resignation from all positions he then holds with us if (i) there is a material diminution in his duties and responsibilities with us; *provided*, *however*, that a change in title or reporting relationship will not constitute good reason; (ii) there is a material reduction of his base salary; *provided*, *however*, that a material reduction in base salary pursuant to a salary reduction program affecting all or substantially all of our employees and that does not adversely affect the executive to a greater extent than other similarly situated employees shall not constitute good reason; or (iii) the executive is required to relocate his primary work location to a facility or location that would increase his one-way commute distance by more than twenty-five (25) miles from his primary work location as of immediately prior to such change.

***Restrictive Covenants***

Pursuant to their respective agreements, our named executive officers are bound by certain restrictive covenants, including covenants relating to confidentiality and/or assignment of intellectual property rights. In addition, each named executive officer is bound by covenants not to solicit our officers or employees during employment and for a specified period following termination of employment. Each named executive officer is also bound by a covenant not to disparage us or our employees, clients, directors or agents or divert or attempt to divert any of our actual or potential business.

**Equity Compensation Plans and Other Benefit Plans**

***2016 Equity Incentive Award Plan***

In connection with this offering, we adopted a 2016 Equity Incentive Award Plan (2016 Plan), which will be effective immediately prior to the consummation of this offering. The principal purpose of the 2016 Plan is to attract, retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards and cash-based performance bonus awards. The material terms of the 2016 Plan, are summarized below.

***Share Reserve.*** Under the 2016 Plan, an aggregate of 3,051,750 shares of our common stock will be initially reserved for issuance pursuant to a variety of stock-based compensation awards, including stock options, stock appreciation rights (SARS), restricted stock awards, restricted stock unit awards, deferred stock awards, dividend equivalent awards, stock payment awards and performance awards. The number of shares initially reserved for issuance or transfer pursuant to awards under the 2016 Plan will be increased by (1) the number of shares represented by awards outstanding under our 2014 Plan that are forfeited or lapse unexercised following the effective date up to a maximum of 1,136,229 shares and (2) an annual increase on the first day of each fiscal year beginning in 2017 and ending in 2026, equal to the lesser of (a) four percent (4%) of the shares of common stock outstanding (on an as-converted basis) on the last day of the immediately preceding fiscal year and (b) such smaller number of shares of stock as determined by our board of directors; provided, however, that no more than 15,000,000 (subject to stock splits, dividends, recapitalizations and the like) shares of stock may be issued upon the exercise of incentive stock options.

The following counting provisions will be in effect for the share reserve under the 2016 Plan:

- to the extent that an award terminates, expires or lapses for any reason or an award is settled in cash without the delivery of shares, any shares subject to the award at such time will be available for future grants under the 2016 Plan;

- to the extent shares are tendered or withheld to satisfy the grant, exercise price or tax withholding obligation with respect to any award under the 2016 Plan, such tendered or withheld shares will be available for future grants under the 2016 Plan;

- to the extent that shares of our common stock underlying unvested awards are repurchased by us, such shares will be available for future grants under the 2016 Plan;

- the payment of dividend equivalents in cash in conjunction with any outstanding awards will not be counted against the shares available for issuance under the 2016 Plan;

- to the extent permitted by applicable law or any exchange rule, shares issued in assumption of, or in substitution for, any outstanding awards of any entity acquired in any form of combination by us or any of our subsidiaries will not be counted against the shares available for issuance under the 2016 Plan; and

- to the extent that an entity acquired in any form of combination by us or any of our subsidiaries has shares available for grant under pre-existing plan, the shares available for grant pursuant to the terms of such pre-existing plan (as may be appropriately adjusted) may be used for awards under the 2016 Plan and will not be counted against the shares available for issuance under the 2016 Plan.

***Administration.*** The compensation committee of our board of directors is expected to administer the 2016 Plan. The board or compensation committee may delegate their duties and responsibilities to committees of directors and/or officers, subject to certain limitations that may be imposed under Section 162(m), Section 16 of the Exchange Act and/or stock exchange rules. The administrator must consist of at least two members of our board of directors, each of whom is intended to qualify as an "outside director," within the meaning of Section 162(m), a "non-employee director" for purposes of Rule 16b-3 under the Exchange Act and an "independent director" within the meaning of the rules of the applicable stock exchange, or other principal securities market on which shares of our common stock are traded. The 2016 Plan provides that the board or compensation committee may delegate its authority to grant awards to employees other than executive officers and certain senior executives of the company to a committee consisting of one or more members of our board of directors or one or more of our officers, other than awards made to our non-employee directors, which must be approved by our full board of directors. Our board of directors may at any time remove the compensation committee as the administrator and revest in itself the authority to administer the 2016 Plan.

Subject to the terms and conditions of the 2016 Plan, the administrator has the authority to select the persons to whom awards are to be made, to determine the number of shares to be subject to awards, to prescribe the terms and conditions of awards and to make all other determinations and to take all other actions necessary or advisable for the administration of the 2016 Plan. The administrator is also authorized to adopt, amend or rescind rules relating to administration of the 2016 Plan.

***Eligibility.*** Options, SARs, restricted stock and all other stock-based and cash-based awards under the 2016 Plan may be granted to individuals who are then our officers, employees or consultants or are the officers, employees or consultants of certain of our subsidiaries, if any. Such awards also may be granted to our directors. Only employees of us or certain of our subsidiaries, if any, may be granted incentive stock options (ISOs).

***Awards.*** The 2016 Plan provides that the administrator may grant or issue stock options, SARs, restricted stock, restricted stock units, deferred stock, dividend equivalents, performance awards, stock payments and other stock-based and cash-based awards, or any combination thereof. Each award will be set forth in a separate agreement with the person receiving the award and will indicate the type of award, and the terms and conditions thereof.

- *Nonstatutory Stock Options (NSOs)* will provide for the right to purchase shares of our common stock at a specified price which may not be less than fair market value on the date of grant, and

usually will become exercisable (at the discretion of the administrator) in one or more installments after the grant date, subject to the participant's continued employment or service with us and/or subject to the satisfaction of corporate performance targets and individual performance targets established by the administrator. NSOs may be granted for any term specified by the administrator that does not exceed ten years.

- *Incentive Stock Options* will be designed in a manner intended to comply with the provisions of Section 422 of the Code and will be subject to specified restrictions contained in the Code. Among such restrictions, ISOs must have an exercise price of not less than the fair market value of a share of common stock on the date of grant, may only be granted to employees and must not be exercisable after a period of ten years measured from the date of grant. In the case of an ISO granted to an individual who owns (or is deemed to own) at least 10% of the total combined voting power of all classes of our capital stock, the 2016 Plan provides that the exercise price must be at least 110% of the fair market value of a share of common stock on the date of grant and the ISO must not be exercisable after a period of five years measured from the date of grant.

- *Restricted Stock* may be granted to any eligible individual and made subject to such restrictions as may be determined by the administrator. Restricted stock, typically, may be forfeited for no consideration or repurchased by us at the original purchase price if the conditions or restrictions on vesting are not met. In general, restricted stock may not be sold or otherwise transferred or hypothecated until certain restrictions are removed or expire. Holders of restricted stock, unlike recipients of options, will have voting rights and will have the right to receive dividends, if any, prior to the time when the restrictions lapse, however, extraordinary dividends will generally be placed in escrow, and will not be released until the restrictions are removed or expire.

- *Restricted Stock Units* may be awarded to any eligible individual, typically without payment of consideration, but subject to vesting conditions based on continued employment or service or on performance criteria established by the administrator. Like restricted stock, restricted stock units may not be sold, or otherwise transferred or hypothecated, until vesting conditions are removed or expire. Unlike restricted stock, stock underlying restricted stock units will not be issued until the restricted stock units have vested, and recipients of restricted stock units generally will have no voting or dividend rights prior to the time when vesting conditions are satisfied.

- *Deferred Stock Awards* represent the right to receive shares of our common stock on a future date. Deferred stock may not be sold or otherwise transferred or hypothecated until issued. Deferred stock will not be issued until the deferred stock award has vested, and recipients of deferred stock generally will have no voting or dividend rights prior to the time when the vesting conditions are satisfied and the shares are issued. Deferred stock awards generally will be forfeited, and the underlying shares of deferred stock will not be issued, if the applicable vesting conditions and other restrictions are not met.

- *Deferred Stock Units* may be awarded to any eligible individual, and may be subject to vesting conditions based on continued employment or service or on performance criteria established by the administrator. Like deferred stock, deferred stock units may not be sold, or otherwise transferred or hypothecated, until vesting conditions are removed or expire. Stock underlying deferred stock units will not be issued until the deferred stock units have vested or upon a specified settlement date thereafter. Recipients of deferred stock awards and recipients of deferred stock units generally will have no voting or dividend rights prior to the time when the vesting conditions are satisfied and the shares are issued.

- *Stock Appreciation Rights* may be granted in connection with stock options or other awards, or separately. SARs granted in connection with stock options or other awards typically will provide for payments to the holder based upon increases in the price of our common stock over a set exercise price. The exercise price of any SAR granted under the 2016 Plan must be at least

100% of the fair market value of a share of our common stock on the date of grant. Except as required by Section 162(m) with respect to a SAR intended to qualify as performance-based compensation as described in Section 162(m), there are no restrictions specified in the 2016 Plan on the exercise of SARs or the amount of gain realizable therefrom, although restrictions may be imposed by the administrator in the SAR agreements. SARs under the 2016 Plan will be settled in cash or shares of our common stock, or in a combination of both, at the election of the administrator.

- *Dividend Equivalents* represent the value of the dividends, if any, per share paid by us, calculated with reference to the number of shares covered by the award. Dividend equivalents may be settled in cash or shares and at such times as determined by the compensation committee or board of directors, as applicable.

- *Performance Awards* may be granted by the administrator on an individual or group basis. In general, these awards will be based upon specific performance targets and may be paid in cash or in common stock or in a combination of both. Performance awards may include "phantom" stock awards that provide for payments based upon the value of our common stock. Performance awards may also include bonuses that may be granted by the administrator on an individual or group basis and which may be payable in cash or in common stock or in a combination of both.

- *Stock Payments* may be authorized by the administrator in the form of common stock or an option or other right to purchase common stock as part of a deferred compensation or other arrangement in lieu of all or any part of compensation, including bonuses, that would otherwise be payable in cash to the employee, consultant or non-employee director.

***Change in Control.*** In the event of a change in control where the acquiror does not assume or replace awards granted, prior to the consummation of such transaction, all awards other than performance awards issued under the 2016 Plan will be subject to accelerated vesting such that 100% of such awards will become vested and exercisable or payable, as applicable. Performance awards not assumed in a change in control transaction will continue to vest pursuant to the terms and conditions of the applicable award agreements. In the event that within the twelve-month period immediately following a change in control, the holder of an award under the 2016 Plan is terminated by the Company other than for cause or leaves the Company for good reason, then the vesting and, if applicable, exercisability of one hundred percent (100%) of the then-unvested shares subject to the outstanding awards shall accelerate upon the termination date. In addition, the administrator may, in its sole discretion, include such further provisions or limitations in any award agreement as it deems appropriate. The administrator may also make appropriate adjustments to awards under the 2016 Plan and is authorized to provide for the acceleration, cash-out, termination, assumption, substitution or conversion of such awards in the event of a change in control or certain other unusual or nonrecurring events or transactions. Under the 2016 Plan, a change in control is generally defined as:

- the transfer or exchange in a single transaction or series of related transactions by our stockholders of more than 50% of our voting stock to a person or group;

- a change in the composition of our board of directors over a two-year period such that 50% or more of the members of the board of directors elected by at least two-thirds of the directors who were directors at the beginning of the two-year period or whose election or nomination was so approved cease to constitute a majority of our board;

- a merger, consolidation, reorganization or business combination in which we are involved, directly or indirectly, other than a merger, consolidation, reorganization or business combination which results in our outstanding voting securities immediately before the transaction continuing to represent a majority of the voting power of the acquiring company's outstanding voting

securities and after which no person or group beneficially owns 50% or more of the outstanding voting securities of the surviving entity immediately after the transaction;

- the sale, exchange or transfer of all or substantially all of our assets; or
- stockholder approval of our liquidation or dissolution.

***Adjustments of Awards.*** In the event of any stock dividend, stock split, combination or exchange of shares, merger, consolidation, spin-off, recapitalization, distribution of our assets to stockholders (other than normal cash dividends) or any other corporate event affecting the number of outstanding shares of our common stock or the share price of our common stock other than an equity restructuring (as defined below), the administrator may make appropriate, proportionate adjustments to:

- the aggregate number and kind of shares subject to the 2016 Plan;
- the number and kind of shares subject to outstanding awards;
- the terms and conditions of outstanding awards (including, without limitation, any applicable performance targets or criteria with respect to such awards); and
- the grant or exercise price per share of any outstanding awards under the 2016 Plan.

In the event of any transaction or event described above, or any unusual or nonrecurring transaction or events, and in order to prevent dilution or enlargement of the potential benefits intended to be made available under the 2016 Plan, the administrator in its sole discretion may:

- provide for the termination or replacement of an award in exchange for cash or other property;
- provide that any outstanding award cannot vest, be exercised or become payable after such event; and/or
- provide that awards may be exercisable, payable or fully vested as to shares of common stock covered thereby.

In the event of an equity restructuring, the administrator will make appropriate, proportionate adjustments to the number and type of securities subject to each outstanding award and the exercise price or grant price thereof, if applicable. In addition, the administrator will make equitable adjustments, as the administrator in its discretion may deem appropriate to reflect such equity restructuring, with respect to the aggregate number and type of shares subject to the 2016 Plan. The adjustments upon an equity restructuring are nondiscretionary and will be final and binding on the affected holders and the Company.

For purposes of the 2016 Plan, "equity restructuring" means a nonreciprocal transaction between us and our stockholders, such as a stock dividend, stock split, spin-off, rights offering or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of shares (or other securities) or the share price of our common stock (or other securities) and causes a change in the per share value of the common stock underlying outstanding stock-based awards granted under the 2016 Plan.

***Foreign Participants, Claw-Back Provisions and Transferability.*** The administrator may modify award terms, establish subplans and/or adjust other terms and conditions of awards, subject to the share limits described above, in order to facilitate grants of awards subject to the laws and/or stock exchange rules of countries outside of the United States. All awards will be subject to the provisions of any claw-back policy implemented by the Company to the extent set forth in such claw-back policy and/or in the applicable award agreement. With limited exceptions for estate planning, domestic relations orders, certain beneficiary designations and the laws of descent and distribution, awards under the 2016 Plan are generally non-transferable prior to vesting unless otherwise determined by the administrator, and are exercisable only by the participant.

***Amendment and Termination.*** Our board of directors or the compensation committee (with board approval) may terminate, amend or modify the 2016 Plan at any time and from time to time. However, we must generally obtain stockholder approval:

- to increase the number of shares available under the 2016 Plan (other than in connection with the automatic annual increases and certain corporate events, in each case, as described above);
- to reduce the price per share of any outstanding option or SAR granted under the 2016 Plan;
- to cancel any outstanding option or SAR in exchange for cash or another award when the option or SAR price per share exceeds the fair market value of the underlying shares; or
- to the extent required by applicable law, rule or regulation (including any applicable stock exchange rule).

***Termination.*** The board of directors may terminate the 2016 Plan at any time. No incentive stock options may be granted pursuant to the 2016 Plan after the tenth anniversary of the effective date of the 2016 Plan, and no additional annual share increases to the 2016 Plan's aggregate share limit will occur from and after such anniversary. Any award that is outstanding on the termination date of the 2016 Plan will remain in force according to the terms of the 2016 Plan and the applicable award agreement.

We intend to file with the SEC a registration statement on Form S-8 covering the shares of our common stock issuable under the 2016 Plan.

***2014 Equity Incentive Plan***

We currently maintain the 2014 Equity Incentive Plan, as amended (2014 Plan). The purposes of the 2014 Plan are to attract and retain personnel for positions of substantial responsibility, to provide additional incentives to our employees, directors and consultants, and to promote the Company's business. The material terms of the 2014 Plan are summarized below:

***Share Reserve.*** The 2014 Plan reserved an aggregate of 3,728,501 shares of our common stock for issuance pursuant to awards of stock options or stock purchase rights under the 2014 Plan. The following counting provisions are in effect for the share reserve under the 2014 Plan:

- to the extent that an award terminates, expires or is canceled for any reason, any shares subject to the award at such time will be available for future grants under the 2014 Plan.
- to the extent shares are subject to an award that is withheld or reacquired by the Company to satisfy the exercise price or tax withholding obligations under the 2014 Plan, such shares will be available for future grants under the 2014 Plan.
- to the extent shares of restricted stock are repurchased by the Company at their original purchase price, such shares shall again be available for future grant under the 2014 Plan.

***Administration.*** The Company's board of directors administers the 2014 Plan. Subject to the terms and conditions of the 2014 Plan, the administrator has the authority to, among other things, select the persons to whom awards are to be made, to determine the kinds of awards granted, the number of shares to be subject to awards and the terms and conditions of awards, and to adopt, amend or rescind rules relating to administration of the 2014 Plan.

***Eligibility.*** Awards under the 2014 Plan may be granted to individuals who are then our officers, employees or consultants or are the officers, employees or consultants of certain of our parents and subsidiaries. Such awards may also be granted to our directors. Only employees of us or certain of our subsidiaries may be granted incentive stock options.

***Awards.*** The 2014 Plan provides that the administrator may grant or issue stock options or stock purchase rights, or any combination thereof. Each award will be set forth in a separate award

agreement with the person receiving the award and will indicate the type, terms and conditions of the award.

- *Nonstatutory Stock Options* provide for the right to purchase shares of our common stock at a specified price which may not be less than fair market value on the date of grant, and usually become exercisable (at the discretion of the administrator) in one or more installments after the grant date, subject to the participant's continued employment or service with us. NSOs may be granted for any term specified by the administrator that does not exceed ten years.

- *Incentive Stock Options* provide for the right to purchase shares of our common stock and designed in a manner intended to comply with the provisions of Section 422 of the Code. Among other such restrictions, ISOs must have an exercise price of not less than the fair market value of a share of common stock on the date of grant, may only be granted to employees and must not be exercisable after a period of ten years measured from the date of grant. In the case of an ISO granted to an individual who owns (or is deemed to own) at least 10% of the total combined voting power of all classes of our capital stock, the 2014 Plan provides that the price must be at least 110% of the fair market value of a share of common stock on the date of grant and the ISO must not be exercisable after a period of five years measured from the date of grant.

- *Stock Purchase Rights* represent the right to purchase shares of our common stock for a per share purchase price determined by the administrator. Stock purchase rights are exercisable during a specified period established by the administrator. Stock purchase rights are typically subject to vesting conditions based on continued employment or (other such other criteria as may be determined by the administrator) and are subject to a Company right of repurchase until such conditions are removed or expire. Stock purchase rights may generally also not be sold or otherwise transferred until such vesting conditions are removed or expire.

***Change in Control.*** In the event of a change in control of the Company where the acquiror does not assume or replace awards granted with similar stock awards, then (1) any award issued under the 2014 Plan to participants who are still employed by or provide services to the Company prior to such change in control will be subject to accelerated vesting such that 100% of such awards will become vested and exercisable, and all restrictions thereon shall lapse; and (2) any other awards outstanding under 2014 Plan shall be terminated if not exercised prior to such change in control. The administrator may also make appropriate adjustments to awards under the 2014 Plan and is authorized to provide for the acceleration, cash out, termination, substitution or conversion of such awards in the event of a change in control or certain other unusual or nonrecurring events or transactions. Under the 2014 Plan, a change in control is generally defined as:

- a merger or consolidation in which we are involved and are not the surviving corporation, other than a merger, consolidation, reincorporation or other transaction in which there is no substantial change in the stockholders of the Company;

- a merger in which we are the surviving corporation but after which our stockholders immediately prior to the transaction cease to own at least a majority of the combined voting power of the surviving corporation's outstanding voting securities immediately after the transaction;

- a dissolution or liquidation of the Company; or

- the sale of all or substantially all of our assets.

***Adjustments of Awards.*** In the event of any stock dividend, stock split, combination or exchange of shares, merger, consolidation, spin-off, recapitalization, distribution of our assets to stockholders (other than normal cash dividends) or any other corporate event affecting the number of outstanding shares of

our common stock or the share price of our common stock other than an equity restructuring (as defined below), the administrator may make appropriate, proportionate adjustments to:

- the aggregate number and kind of shares subject to the 2014 Plan;
- the number and kind of shares subject to outstanding awards;
- the grant or exercise price per share of any outstanding awards under the 2014 Plan.

In the event of any transaction or event described above, or any similar transaction or event, and in order to prevent dilution or enlargement of the potential benefits intended to be made available under the 2014 Plan, the administrator in its sole discretion may:

- provide for the termination or replacement of an award in exchange for cash or other property;
- provide that any outstanding award cannot vest, be exercised or become payable after such event; and/or
- provide that awards may be exercisable, payable or fully vested as to shares of common stock covered thereby.

In the event of an equity restructuring, the administrator will make appropriate, proportionate adjustments to the number and type of securities subject to each outstanding award and the exercise price or grant price thereof, if applicable. In addition, the administrator will make equitable adjustments, as the administrator in its discretion may deem appropriate to reflect such equity restructuring, with respect to the aggregate number and type of shares subject to the 2014 Plan. The adjustments upon an equity restructuring are nondiscretionary and will be final and binding on the affected holders and the Company.

For purposes of the 2014 Plan, "equity restructuring" means a nonreciprocal transaction between us and our stockholders, such as a stock dividend, stock split, spin-off, rights offering or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of shares (or other securities) or the share price of our common stock (or other securities) and causes a change in the per share value of the common stock underlying outstanding stock-based awards granted under the 2014 Plan.

***Amendment and Termination.*** Our board of directors may amend, modify or terminate the 2014 Plan at any time. However, except in connection with certain changes in the company's capital structure and to the extent required by applicable law, stockholder approval will be required for an amendment that (1) increases the maximum number of shares which may be issued under the 2014 Plan or the number; or (2) extends the term of the 2014 Plan. In general, no amendment may impair the rights of a holder of an outstanding award without the holder's consent. Following the completion of this offering and in connection with the effectiveness of our 2016 Plan, the 2014 Plan will terminate and no further awards will be granted under the 2014 Plan. However, any awards under the 2014 Plan that are outstanding as of the effective date of the 2016 Plan will continue to be subject to the terms and conditions of the 2014 Plan.

***2016 Employee Stock Purchase Plan***

In connection with this offering, we adopted a 2016 Employee Stock Purchase Plan, which we refer to as our ESPP, which will be effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part. The ESPP is designed to allow our eligible employees to purchase shares of our common stock with accumulated payroll deductions. The ESPP is intended to qualify under Section 423 of the Code.

***Plan Administration.*** Our compensation committee will administer the ESPP, subject to the terms and conditions of the ESPP. Our compensation committee may delegate administrative tasks under the ESPP to the services of an agent and/or employees. The administrator will have the discretionary authority to administer and interpret the ESPP. Interpretations and constructions of the administrator

of any provision of the ESPP or of any rights thereunder will be conclusive and binding on all persons. We will bear all expenses and liabilities incurred by the ESPP administrator.

***Shares Available Under ESPP.*** The maximum number of shares of our common stock which will be authorized for sale under the ESPP is equal to the sum of (1) 200,000 shares of common stock and (2) an annual increase on the first day of each year beginning in 2017 and ending in 2026, equal to the lesser of (a) one percent (1%) of the shares of our common stock outstanding (on an as-converted basis) on the last day of the immediately preceding fiscal year and (b) such number of shares of common stock as determined by our board of directors; provided, however, no more than 3,000,000 shares of our common stock may be issued under the ESPP. The shares made available for sale under the ESPP may be authorized but unissued shares or reacquired shares reserved for issuance under the ESPP.

***Eligible Employees.*** Employees eligible to participate in the ESPP for a given offering period generally include employees who are employed by us or one of our designated subsidiaries on the first day of the offering period, or the enrollment date. Our employees and any employees of our subsidiaries who customarily work less than five months in a calendar year or are customarily scheduled to work less than 20 hours per week will not be eligible to participate in the ESPP. Finally, an employee who owns (or is deemed to own through attribution) 5% or more of the combined voting power or value of all our classes of stock or the stock of one of our subsidiaries will not be allowed to participate in the ESPP.

***Participation.*** Employees will enroll under the ESPP by completing a payroll deduction form permitting the deduction from their compensation of at least 1% of their compensation but not more than the lesser of 15% of their compensation and $50,000 per offering period. Such payroll deductions are expressed as a whole number percentage and the accumulated deductions will be applied to the purchase of shares on each semi-annual purchase date. However, a participant may not purchase more than 25,000 shares in each offering period, and may not subscribe for more than $25,000 in fair market value of shares of our common stock (determined at the time the option is granted) per calendar year falling in the offering period. The ESPP administrator has the authority to change these limitations for any subsequent offering period.

***Offering.*** Under the ESPP, participants are offered the option to purchase shares of our common stock at a discount during a series of successive offering periods. The offering periods will commence and end on dates as determined by the ESPP administrator. However, in no event may an offering period be longer than 27 months in length.

The option purchase price will be the lower of 85% of the closing trading price per share of our common stock on the first trading date of an offering period in which a participant is enrolled or 85% of the closing trading price per share on the semi-annual purchase date, which will occur on the last trading day of each offering period.

Unless a participant cancels his or her participation in the ESPP before the purchase date, the participant will be deemed to have exercised his or her option in full as of each purchase date. Upon exercise, the participant will purchase the number of whole shares that his or her accumulated payroll deductions will buy at the option purchase price, subject to the participation limitations listed above.

A participant may cancel his or her payroll deduction authorization at any time prior to the end of the offering period. Upon cancellation, the participant will have the option to either (1) receive a refund of the participant's account balance in cash without interest or (2) exercise the participant's option for the current offering period for the maximum number of shares of common stock on the applicable purchase date, with the remaining account balance refunded in cash without interest. Following at least one payroll deduction, a participant may also decrease (but not increase) his or her payroll deduction authorization once during any offering period. If a participant wants to increase or

decrease the rate of payroll withholding, he or she may do so effective for the next offering period by submitting a new form before the offering period for which such change is to be effective.

A participant may not assign, transfer, pledge or otherwise dispose of (other than by will or the laws of descent and distribution) payroll deductions credited to a participant's account or any rights to exercise an option or to receive shares of our common stock under the ESPP. During a participant's lifetime, his or her options in the ESPP shall be exercisable only by such participant. Any unauthorized attempt at assignment, transfer, pledge or other disposition will not be given effect.

***Adjustments upon Changes in Recapitalization, Dissolution, Liquidation, Merger or Asset Sale.*** In the event of any increase or decrease in the number of issued shares of our common stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the common stock or any other increase or decrease in the number of shares of common stock effected without receipt of consideration by us, we will proportionately adjust the aggregate number of shares of our common stock offered under the ESPP, the number and price of shares which any participant has elected to purchase pursuant to the ESPP and the maximum number of shares which a participant may elect to purchase in any single offering period.

If there is a proposal to dissolve or liquidate us, then the ESPP will terminate immediately prior to the consummation of such proposed dissolution or liquidation, and any offering period then in progress will be shortened by setting a new purchase date to take place before the date of our dissolution or liquidation. We will notify each participant of such change in writing at least ten business days prior to the new exercise date. If we undergo a merger with or into another corporation or sale of all or substantially all of our assets, each outstanding option will be assumed or an equivalent option substituted by the successor corporation or the parent or subsidiary of the successor corporation. If the successor corporation refuses to assume the outstanding options or substitute equivalent options, then any offering period then in progress will be shortened by setting a new purchase date to take place before the date of our proposed sale or merger. We will notify each participant of such change in writing at least ten business days prior to the new exercise date.

***Amendment and Termination.*** Our board of directors may amend, suspend or terminate the ESPP at any time. However, the board of directors may not amend the ESPP without obtaining stockholder approval within 12 months before or after such amendment to the extent required by applicable laws.

We intend to file with the SEC a registration statement on Form S-8 covering the shares issuable under the ESPP.

**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 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 executive officer. The director or executive officer may amend or terminate the plan in limited circumstances. Our directors and executive officers may also buy or sell additional shares of common stock outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

## CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a description of transactions since our inception on January 27, 2014 to which we have been a party, in which the amount involved exceeds $120,000, and in which any of our directors, executive officers or holders of more than 5% of our capital stock, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest.

### Issuance of Series B Convertible Preferred Stock

In September 2015, we issued an aggregate of 5,353,312 shares of our Series B convertible preferred stock at a price per share of $14.01 for aggregate net proceeds of $74.8 million to 33 accredited investors. The table below sets forth the number of shares of Series B convertible preferred stock sold to our directors, executive officers or holders of more than 5% of our common stock, or an affiliate or immediate family member thereof:

| Name | Number of Shares of Series B Convertible Preferred Stock | Aggregate Purchase Price |
|---|---|---|
| Fidelity Select Portfolios[1] | 1,284,797 | $ 18,000,005.97 |
| OrbiMed Private Investment V, LP[2] | 713,776 | $ 10,000,001.76 |
| Entities affiliated with Adams Street Partners[3] | 356,888 | $ 5,000,000.88 |
| Novo A/S[4] | 356,888 | $ 5,000,000.88 |
| Miller-Horning Family Trust u/a/d January 25, 1985[5] | 62,455 | $ 874,994.55 |

(1) Includes 747,748 shares purchased by Mag & Co fbo Fidelity Select Portfolios: Biotechnology Portfolio, 338,682 shares purchased by M Gardiner & Co fbo Fidelity Securities Fund: Fidelity Blue Chip Growth Fund, 180,163 shares purchased by Bangle & Co fbo Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund, 15,935 shares purchased by FLAPPER CO fbo Pyramis Lifecycle Blue Chip Growth Commingled Pool and 2,269 shares purchased by Mag & Co fbo Fidelity Blue Chip Growth Commingled Pool.

(2) Peter Thompson, M.D., who is a member of our board of directors, is a private equity partner of OrbiMed Advisors LLC (OrbiMed Advisors), the sole managing member of the sole general partner of OrbiMed Private Investment V, LP (OrbiMed V).

(3) Includes 92,278 shares purchased by Adams Street 2011 Direct Fund LP (Adams Street 2011), 95,001 shares purchased by Adams Street 2012 Direct Fund LP (Adams Street 2012), 71,863 shares purchased by Adams Street 2013 Direct Fund LP (Adams Street 2013) and 97,746 shares purchased by Adams Street 2014 Direct Fund LP (Adams Street 2014). Elisha P. (Terry) Gould III, who is a member of our board of directors, is a partner of Adams Street Partners, LLC, the managing member of the general partner of the general partner of each of Adams Street 2011, Adams Street 2012, Adams Street 2013 and Adams Street 2014.

(4) Peter Moldt, Ph.D., who is a member of our board of directors, is employed as a partner of Novo Ventures (US) Inc., which provides certain consultancy services to Novo A/S (Novo). Dr. Moldt is not deemed to be a beneficial owner of, nor does he have a pecuniary interest in, the shares held by Novo.

(5) Richard A. Miller, M.D., who is a member of our board of directors and our President and Chief Executive Officer, is a trustee of the Miller-Horning Family Trust u/a/d January 25, 1985.

### Issuance of Series A Convertible Preferred Stock

In November 2014, we issued an aggregate of 3,395,468 shares of our Series A convertible preferred stock at a price per share of $3.755 for aggregate net proceeds of $12.6 million to twelve accredited investors. In January 2015 and June 2015 we issued an additional 1,065,246 and 4,460,715 shares, respectively, of our Series A convertible preferred stock in additional closings. The table below sets forth the number of shares of Series A convertible preferred stock sold to our directors, executive

officers or holders of more than 5% of our common stock, or an affiliate or immediate family member thereof:

| Name | Number of Shares of Series A Convertible Preferred Stock | Aggregate Purchase Price |
|---|---|---|
| ***November 2014 Issuances*** | | |
| OrbiMed Private Investments V, LP[(1)] | 1,997,337 | $ 7,500,000.44 |
| Entities affiliated with Adams Street Partners[(2)] | 1,065,246 | $ 3,999,998.74 |
| Miller-Horning Family Trust u/a/d January 25, 1985[(3)] | 133,155 | $ 499,997.03 |
| Karlson Lea Family Trust UTA dated February 11, 1998[(4)] | 21,304 | $ 79,996.52 |
| ***January 2015 Issuance*** | | |
| Novo A/S[(5)] | 1,065,246 | $ 3,999,998.73 |
| ***June 2015 Issuances*** | | |
| OrbiMed Private Investments V, LP[(1)] | 1,997,337 | $ 7,500,000.44 |
| Entities affiliated with Adams Street Partners[(6)] | 1,065,247 | $ 4,000,002.50 |
| Novo A/S[(5)] | 1,065,246 | $ 3,999,998.73 |
| Miller-Horning Family Trust u/a/d January 25, 1985[(3)] | 133,155 | $ 499,997.03 |
| Karlson Lea Family Trust UTA dated February 11, 1998[(4)] | 21,304 | $ 79,996.52 |

(1) Peter Thompson, M.D., who is a member of our board of directors, is a private equity partner of OrbiMed Advisors, the sole managing member of the sole general partner of OrbiMed V.

(2) Includes 275,432 shares purchased by Adams Street 2011, 283,560 shares purchased by Adams Street 2012, 214,499 shares purchased by Adams Street 2013 and 291,755 shares purchased by Adams Street 2014. Elisha P. (Terry) Gould III, who is a member of our board of directors, is a partner of Adams Street Partners, LLC, the managing member of the general partner of the general partner of each of Adams Street 2011, Adams Street, 2012, Adams Street 2013 and Adams Street 2014.

(3) Richard A. Miller, M.D., who is a member of our board of directors and our President and Chief Executive Officer, is a trustee of the Miller-Horning Family Trust u/a/d January 25, 1985.

(4) Leiv Lea, who is our Chief Financial Officer, is a trustee of the Karlson Lea Family Trust UTA dated February 11, 1998.

(5) Peter Moldt, Ph.D., who is a member of our board of directors, is employed as a partner of Novo Ventures (US) Inc., which provides certain consultancy services to Novo. Dr. Moldt is not deemed to be a beneficial owner of, nor does he have a pecuniary interest in, the shares held by Novo.

(6) Includes 275,432 shares purchased by Adams Street 2011, 283,561 shares purchased by Adams Street 2012, 214,499 shares purchased by Adams Street 2013 and 291,755 shares purchased by Adams Street 2014. Elisha P. (Terry) Gould III, who is a member of our board of directors, is a partner of Adams Street Partners, LLC, the managing member of the general partner of the general partner of each of Adams Street 2011, Adams Street, 2012, Adams Street 2013 and Adams Street 2014.

**Investors' Rights Agreement**

We entered into an amended and restated investors' rights agreement with the purchasers of our outstanding convertible preferred stock, including entities with which certain of our directors are affiliated. As of December 31, 2015, the holders of approximately 14.3 million shares of common stock issuable upon conversion of our convertible preferred stock are entitled to rights with respect to the registration of their shares under the Securities Act. For a more detailed description of these registration rights, see "Description of Capital Stock—Registration Rights."

**Voting Agreement**

We entered into an amended and restated voting agreement with certain holders of our common stock and convertible preferred stock. Upon the consummation of this offering, the amended and

restated voting agreement will terminate. For a description of the amended and restated voting agreement, see "Management—Board Composition—Voting Arrangements."

**Right of First Refusal and Co-Sale Agreement**

We have entered into a right of first refusal and co-sale agreement with certain holders of our common stock and holders of our convertible preferred stock. This agreement provides for rights of first refusal and co-sale relating to the shares of our common stock held by certain key holders of our common stock. Upon the consummation of this offering, the amended and restated right of first refusal and co-sale agreement will terminate.

**Director and Executive Officer Compensation**

Please see "Management—Director Compensation" and "Executive Compensation" for information regarding compensation of directors and executive officers.

**Employment Agreements**

We have entered into employment agreements with our executive officers. For more information regarding these agreements, see "Executive and Director Compensation—Narrative to Summary Compensation Table and Outstanding Equity Awards at 2014 Fiscal Year End."

**Indemnification Agreements and Directors' and Officers' Liability Insurance**

We have entered into or intend to enter into indemnification agreements with each of our directors and executive officers. These agreements will require us to, among other things, indemnify each and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, penalties, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer. We have obtained an insurance policy that insures our directors and officers against certain liabilities, including liabilities arising under applicable securities laws. For additional information see "Management—Limitation on Liability and Indemnification Matters."

**Policies and Procedures for Related Party Transactions**

Our board of directors has adopted a written related person transaction policy to set forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, where the amount involved exceeds $120,000 and a related person had, has or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. As provided by our related person transaction policy, our audit committee will be responsible for reviewing and approving in advance the related party transactions covered by the company's related person transaction policies and procedures. All of the transactions described in this section occurred prior to the adoption of this policy.

## PRINCIPAL STOCKHOLDERS

The following table sets forth information relating to the beneficial ownership of our common stock as of January 31, 2016, by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our outstanding shares of common stock;
- each of our directors;
- each of our named executive officers; and
- all directors and executive officers as a group.

The number of shares beneficially owned by each entity, person, director or executive officer is determined in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares over which the individual has sole or shared voting power or investment power as well as any shares that the individual has the right to acquire within 60 days after January 31, 2016 through the exercise of any stock option, warrants or other rights. Except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock held by that person or entity.

The percentage of shares beneficially owned is computed on the basis of 15,706,356 shares of our common stock outstanding as of January 31, 2016, which reflects the assumed conversion of all of our outstanding shares of convertible preferred stock into an aggregate of 14,274,741 shares of common stock. Shares of our common stock that a person has the right to acquire within 60 days after January 31, 2016 are deemed outstanding for purposes of computing the percentage ownership of the person or entity holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated below, the address for each beneficial owner listed is c/o Corvus Pharmaceuticals, Inc., at 863 Mitten Road, Suite 102, Burlingame, CA 94010.

| Name of Beneficial Owner | Beneficial Ownership Prior to this Offering: Number of Outstanding Shares Beneficially Owned | Number of Shares Exercisable Within 60 Days | Number of Shares Beneficially Owned | Percentage of Beneficial Ownership | Beneficial Ownership After this Offering: Number of Shares Beneficially Owned | Percentage of Beneficial Ownership |
|---|---|---|---|---|---|---|
| **5% and Greater Stockholders** | | | | | | |
| Entities affiliated with Adams Street Partners(1) | 2,487,381 | 0 | 2,487,381 | 15.84% | | % |
| Entities affiliated with Fidelity Management & Research(2) | 1,284,797 | 0 | 1,284,797 | 8.18% | | % |
| Novo A/S(3) | 2,487,380 | 0 | 2,487,380 | 15.84% | | % |
| OrbiMed Private Investments V, LP(4) | 4,708,450 | 0 | 4,708,450 | 29.98% | | % |
| **Executive Officers and Directors** | | | | | | |
| Richard A. Miller, M.D.(5) | 1,046,993 | 0 | 1,046,993 | 6.67% | | % |
| Elisha P. (Terry) Gould III(6) | 2,487,381 | 0 | 2,487,381 | 15.84% | | % |
| Steve E. Krognes | 0 | 0 | 0 | — | | % |
| Peter Moldt, Ph.D.(7) | 0 | 0 | 0 | — | | % |
| Scott W. Morrison | 0 | 0 | 0 | — | | % |
| Peter Thompson, M.D.(8) | 4,708,450 | 0 | 4,708,450 | 29.98% | | % |
| William Ben Jones, Ph.D.(9) | 113,773 | 0 | 113,773 | * | | % |
| Leiv Lea(10) | 199,253 | 0 | 199,253 | 1.27% | | % |
| Erik Verner, Ph.D.(11) | 63,773 | 0 | 63,773 | * | | % |
| All directors and executive officers as a group (9 persons)(12) | 8,619,623 | 0 | 8,619,623 | 54.88% | | % |

* Indicates beneficial ownership of less than 1% of the total outstanding common stock.

(1) Consists of (a) 550,864 shares of common stock issuable upon conversion of Series A convertible preferred stock and 92,278 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Adams Street 2011 Direct Fund LP; (b) 567,121 shares of common stock issuable upon conversion of Series A convertible preferred stock and 95,001 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Adams Street 2012 Direct Fund LP; (c) 428,998 shares of common stock issuable upon conversion of Series A convertible preferred stock and 71,863 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Adams Street 2013 Direct Fund LP and (d) 583,510 shares of common stock issuable upon conversion of Series A convertible preferred stock and 97,746 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Adams Street 2014 Direct Fund LP. The address of Adams Street Partners, LLC is One North Wacker Drive, Suite 2200, Chicago, IL 60606-2823.

(2) Consists of (a) 747,748 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Mag & Co fbo Fidelity Select Portfolios: Biotechnology Portfolio; (b) 338,682 shares of common stock issuable upon conversion of Series B convertible preferred stock held by M Gardiner & Co fbo Fidelity Securities Fund: Fidelity Blue Chip Growth Fund; (c) 180,163 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Bangle & Co fbo Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund; (d) 15,935 shares of common stock issuable upon conversion of Series B convertible preferred stock held by FLAPPER CO fbo Pyramis Lifecycle Blue Chip Growth Commingled Pool; and (e) 2,269 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Mag & Co fbo Fidelity Blue Chip Growth Commingled Pool. The address of all funds affiliated with Fidelity Select Portfolio is 245 Summer Street, Boston, MA 02110.

(3) Consists of (a) 2,130,492 shares of common stock issuable upon conversion of Series A convertible preferred stock; and (b) 356,888 shares of common stock issuable upon conversion of Series B convertible preferred stock held directly by Novo A/S, a Danish limited liability company. The board of directors of Novo A/S, which is currently comprised of Sten Scheibye, Göran Ando, Jeppe Christiansen, Steen Riisgaard and Per Wold-Olsen, has shared voting and investment power with respect to these shares and may exercise such control only with the support of a majority of the board. As such, no individual member of the board is

deemed to hold any beneficiary ownership in these shares. Dr. Peter Moldt, a member of our board of directors, is employed as a Partner of Novo Ventures (US) Inc., which provides certain consultancy services to Novo A/S, and is not deemed to beneficially own or have a pecuniary interest in the shares held by Novo A/S. The address of Novo A/S is Tuborg Havnevej 19, 2900 Hellerup, Denmark.

(4) Consists of (a) 3,994,674 shares of common stock issuable upon conversion of Series A convertible preferred stock and (b) 713,776 shares of common stock issuable upon conversion of Series B convertible preferred stock held by OrbiMed Private Investments V, LP (OrbiMed V). OrbiMed Capital GP V LLC (OrbiMed GP) is the sole general partner of OrbiMed V, and OrbiMed Advisors LLC (OrbiMed Advisors), a registered adviser under the Investment Advisers Act of 1940, as amended, is the sole managing member of OrbiMed GP. Samuel D. Isaly, a natural person, is the managing member of, and holder of a controlling interest in, OrbiMed Advisors. By virtue of such relationships, OrbiMed GP, OrbiMed Advisors and Mr. Isaly may be deemed to have voting and investment power with respect to the shares held by OrbiMed V noted above and as a result may be deemed to have beneficial ownership over such shares. Peter Thompson, M.D., is an employee of OrbiMed Advisors and is its designee to our board of directors pursuant to our amended and restated voting agreement. Each of OrbiMed GP, OrbiMed Advisors, Mr. Isaly and Dr. Thompson disclaims beneficial ownership of the shares held by OrbiMed V, except to the extent of its or his pecuniary interest therein, if any. The address of OrbiMed Advisors is 601 Lexington Avenue (at 53rd Street), 54th Floor, New York, NY 10022-4629.

(5) Consists of (a) 718,228 shares of common stock held by Richard A. Miller and Sandra J. Horning, Trustees of the Miller-Horning Family Trust u/a/d January 25, 1985 (Miller-Horning Trust), of which 576,040 shares were subject to repurchase as of January 31, 2016, (b) 266,310 shares of common stock issuable upon conversion of Series A convertible preferred stock held by The Miller-Horning Trust and (c) 62,455 shares of common stock issuable upon conversion of Series B convertible preferred stock held by The Miller-Horning Trust. Dr. Miller has shared voting, investment and dispositive power over the shares held by The Miller-Horning Trust.

(6) Consists of (a) 550,864 shares of common stock issuable upon conversion of Series A convertible preferred stock and 92,278 shares of common stock issuable upon conversion of Series B convertible preferred stock beneficially owned by Adams Street 2011 Direct Fund LP; (b) 567,121 shares of common stock issuable upon conversion of Series A convertible preferred stock and 95,001 shares of common stock issuable upon conversion of Series B convertible preferred stock beneficially owned by Adams Street 2012 Direct Fund LP; (c) 428,998 shares of common stock issuable upon conversion of Series A convertible preferred stock and 71,863 shares of common stock issuable upon conversion of Series B convertible preferred stock beneficially owned by Adams Street 2013 Direct Fund LP and (d) 583,510 shares of common stock issuable upon conversion of Series A convertible preferred stock and 97,746 shares of common stock issuable upon conversion of Series B convertible preferred stock beneficially owned by Adams Street 2014 Direct Fund LP. as set forth in footnote (1). Mr. Gould disclaims beneficial ownership of the shares listed in footnote (1), except to the extent of his pecuniary interest therein.

(7) Dr. Moldt is employed as a partner of Novo Ventures (US) Inc., which provides certain consultancy services to Novo A/S, and is not deemed to beneficially own or have a pecuniary interest in the shares held by Novo A/S.

(8) Consists of (a) 3,994,674 shares of common stock issuable upon conversion of Series A convertible preferred stock and (b) 713,776 shares of common stock issuable upon conversion of Series B convertible preferred stock beneficially owned by OrbiMed V as set forth in footnote (4). Dr. Thompson disclaims beneficial ownership of the shares listed in footnote (4), except to the extent of his pecuniary interest therein.

(9) Consists of 113,773 shares of common stock, of which 96,502 were subject to repurchase as of January 31, 2016.

(10) Consists of (a) 156,645 shares of common stock held by Mr. Lea and Deborah Karlson, Trustees of the Karlson Lea Family Trust UTA dated February 11, 1998 (Karlson Lea Trust), of which 104,209 shares were subject to repurchase as of January 31, 2016 and (b) 42,608 shares of common stock issuable upon conversion of Series A convertible preferred stock held by the Karlson Lea Trust. Mr. Lea has shared voting, investment and dispositive power over the shares held by the Karlson Lea Trust.

(11) Consists of 63,773 shares of common stock, of which 47,830 were subject to repurchase as of January 31, 2016.

(12) Includes 1,052,419 shares of common stock and 7,567,204 shares of common stock issuable upon the conversion of shares of preferred stock, of which 824,581 shares were subject to repurchase as of January 31, 2016.

## DESCRIPTION OF CAPITAL STOCK

The following summary describes our capital stock and the material provisions of our amended and restated certificate of incorporation and our amended and restated bylaws, which will become effective immediately prior to the consummation of this offering, the amended and restated investors' rights agreement to which we and certain of our stockholders are parties and of the Delaware General Corporation Law. Because the following is only a summary, it does not contain all of the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and amended and restated investors' rights agreement, copies of which have been filed as exhibits to the registration statement of which this prospectus is part.

### General

Immediately prior to the consummation of this offering, we will file our amended and restated certificate of incorporation that authorizes 290,000,000 shares of common stock, $0.0001 par value per share, and 10,000,000 shares of preferred stock, $0.0001 par value per share. As of December 31, 2015, there were outstanding:

- 15,706,356 shares of our common stock, on an as-converted basis, held by approximately 44 stockholders of record; and
- 784,136 shares of our common stock issuable upon exercise of outstanding stock options.

### Common Stock

#### *Voting Rights*

Each holder of our common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our stockholders do not have cumulative voting rights in the election of directors. In addition, the affirmative vote of holders of $66^{2}/_{3}\%$ of the voting power of all of the then-outstanding voting stock will be required to take certain actions, including amending certain provisions of our amended and restated certificate of incorporation, such as the provisions relating to amending our amended and restated bylaws, the classified board and director liability.

#### *Dividends*

Subject to preferences that may be applicable to any then-outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

#### *Liquidation*

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock.

#### *Rights and Preferences*

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely

affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

***Fully Paid and Nonassessable***

All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering will be, fully paid and nonassessable.

***Preferred Stock***

Immediately prior to the consummation of this offering, all outstanding shares of our convertible preferred stock will be converted into shares of our common stock. See Note 7 to our financial statements included elsewhere in this prospectus for a description of our currently outstanding convertible preferred stock. Immediately prior to the consummation of this offering, our amended and restated certificate of incorporation will be amended and restated to delete all references to such shares of convertible preferred stock. From and after the consummation of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of our common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon a liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control of the Company or other corporate action. Immediately after consummation of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

**Registration Rights**

Under our amended and restated investors' rights agreement, following the consummation of this offering, the holders of approximately 14.3 million shares of common stock, or their transferees, have the right to require us to register their shares under the Securities Act so that those shares may be publicly resold, or to include their shares in any registration statement we file, in each case as described below.

***Demand Registration Rights***

Based on the number of shares outstanding as of December 31, 2015, after the consummation of this offering, the holders of approximately 14.3 million shares of our common stock (on an as-converted basis), or their transferees, will be entitled to certain demand registration rights. Beginning one hundred eighty (180) days following the effectiveness of the registration statement of which this prospectus is a part, the holders of at least thirty percent (30%) of these shares can, on not more than two occasions, request that we register all or a portion of their shares if the aggregate price to the public of the shares offered is at least $5,000,000 (after deduction of underwriter's discounts and expenses related to the issuance). In addition, we will not be required to effect a demand registration during the period beginning 30 days prior to the filing and ending 180 days following the effectiveness of a company initiated registration statement relating to an initial public offering of our securities.

***Piggyback Registration Rights***

Based on the number of shares outstanding as of December 31, 2015, after the consummation of this offering, in the event that we determine to register any of our securities under the Securities Act

(subject to certain exceptions), in another offering, either for our own account or for the account of other security holders, the holders of approximately 14.3 million shares of our common stock (on an as-converted basis), or their transferees, will be entitled to certain "piggyback" registration rights allowing holders to include their shares in such registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act, other than with respect to a registration related to employee benefit plans, the offer and sale of debt securities, or corporate reorganizations or certain other transactions, the holders of these shares are entitled to notice of the registration and have the right, subject to limitations that the underwriters may impose on the number of shares included in the registration, to include their shares in the registration. In an underwritten offering, the underwriters have the right, subject to specified conditions and limitations, to limit the number of shares such holders may include.

***Form S-3 Registration Rights***

Based on the number of shares outstanding as of December 31, 2015, after the consummation of this offering, the holders of approximately 14.3 million shares of our common stock (on an as-converted basis), or their transferees, will be entitled to certain Form S-3 registration rights. The holders of any of these shares may make a written request that we register their shares on Form S-3 if we are eligible to file a registration statement on Form S-3 and if the aggregate price to the public of the shares offered is at least $2,000,000 (after deduction of underwriter's discounts and expenses related to the issuance). These stockholders may make an unlimited number of requests for registration on Form S-3, but in no event shall we be required to file more than two registrations on Form S-3 in any twelve-month period.

***Expenses of Registration***

We will pay the registration expenses of the holders of the shares registered pursuant to the demand, piggyback and Form S-3 registration rights described above, including the expenses in an amount not to exceed $35,000 of one special counsel for the selling holders.

***Expiration of Registration Rights***

The demand, piggyback and Form S-3 registration rights described above will expire, with respect to any particular stockholder, upon the earlier of four years after the consummation of this offering or when such stockholder can immediately sell all of its shares under Rule 144 of the Securities Act during any 90 day period (and without the requirement for the Company to be in compliance with the current public information required under Section c(1) of Rule 144 of the Securities Act).

**Anti-Takeover Effects of Provisions of our Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and Delaware Law**

Certain provisions of Delaware law, and our amended and restated certificate of incorporation and our amended and restated bylaws that will become effective immediately prior to the consummation of this offering contain provisions that could make the following transactions more difficult: acquisition of us by means of a tender offer; acquisition of us by means of a proxy contest or otherwise; or removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions that might result in a premium over the market price for our shares.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited

proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

***Delaware Anti-Takeover Statute***

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed "interested stockholders" from engaging in a "business combination" with a publicly-held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. In general, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. In general, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, such as discouraging takeover attempts that might result in a premium over the market price of our common stock.

***Undesignated Preferred Stock***

The ability to authorize undesignated preferred stock pursuant to our amended and restated certificate of incorporation will make it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of the Company.

***Special Stockholder Meetings***

Our amended and restated bylaws will provide that a special meeting of stockholders may be called at any time by the board of directors, but such special meetings may not be called by the stockholders or any other person or persons.

***Requirements for Advance Notification of Stockholder Nominations and Proposals***

Our amended and restated bylaws will establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

***Elimination of Stockholder Action by Written Consent***

Our amended and restated certificate of incorporation will eliminate the right of stockholders to act by written consent without a meeting.

***Classified Board; Election and Removal of Directors; Filling Vacancies***

Effective upon consummation of this offering, our board of directors will be divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation will provide for the removal of any of our directors only for cause and requires a stockholder vote by the holders of at least a $66^{2}/_{3}\%$

of the voting power of the then-outstanding voting stock. For more information on the classified board, see "Management—Board Composition." Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of the board, may only be filled by a resolution of the board of directors unless the board of directors determines that such vacancies shall be filled by the stockholders. This system of electing and removing directors and filling vacancies may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

***Choice of Forum***

Our amended and restated certificate of incorporation and our amended and restated bylaws will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a claim of breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Although our amended and restated certificate of incorporation and amended and restated bylaws contain the choice of forum provision described above, it is possible that a court could find that such a provision is inapplicable for a particular claim or action or that such provision is unenforceable.

***Amendment of Charter Provisions***

The amendment of any of the above provisions in our amended and restated certificate of incorporation, except for the provision making it possible for our board of directors to issue undesignated preferred stock, or the amendment of any provision in our amended and restated bylaws (other than by action of the board of directors), would require approval by holders of at least $66^{2}/_{3}\%$ of the voting power of the then-outstanding voting stock.

The provisions of the Delaware General Corporation Law, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

**Limitations on Liability and Indemnification Matters**

For a discussion of liability and indemnification, please see "Management—Limitation on Liability and Indemnification Matters."

**The NASDAQ Global Market Listing**

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

**Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is Computershare, Inc. The transfer agent and registrar's address is 480 Washington Boulevard, 29th Floor, Jersey City, New Jersey 07130.

## SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. Future sales of our common stock, including shares issued upon the exercise of outstanding options or warrants, in the public market after this offering, or the perception that those sales may occur, could cause the prevailing market price for our common stock to fall or impair our ability to raise equity capital in the future. As described below, only a limited number of shares of our common stock will be available for sale in the public market for a period of several months after completion of this offering due to contractual and legal restrictions on resale described below. Future sales of our common stock in the public market either before (to the extent permitted) or after restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price of common stock at such time and our ability to raise equity capital at a time and price we deem appropriate.

### Sale of Restricted Shares

Based on the number of shares of our common stock outstanding as of December 31, 2015 and assuming an initial public offering price of $ per share (the midpoint of the estimated price range set forth on the cover page of this prospectus), upon the closing of this offering and assuming (1) the conversion of our outstanding convertible preferred stock into shares of common stock, (2) no exercise of the underwriters' option to purchase additional shares of common stock, and (3) no exercise of outstanding options, we will have outstanding an aggregate of approximately shares of common stock. Of these shares, all of the shares of common stock to be sold in this offering, and any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable in the public market without restriction or further registration under the Securities Act, unless the shares are held by any of our "affiliates" as such term is defined in Rule 144 of the Securities Act. All remaining shares of common stock held by existing stockholders immediately prior to the completion of this offering will be "restricted securities" as such term is defined in Rule 144. These restricted securities were issued and sold by us, or will be issued and sold by us, in private transactions and are eligible for public sale only if registered under the Securities Act or if they qualify for an exemption from registration under the Securities Act, including the exemptions provided by Rule 144 or Rule 701, which rules are summarized below.

As a result of the lock-up agreements referred to below and the provisions of Rule 144 and Rule 701 under the Securities Act, based on the number of shares of our common stock outstanding as of December 31, 2015 and assumptions (1) - (3) as described above, the number of shares of our common stock (excluding the shares sold in this offering) that will be available for sale in the public market, subject (1) to any waivers by the underwriters and/or our board of directors under the respective lock-up agreements and (2) with respect to shares held by directors, executive officers and other affiliates, the volume limitations under Rule 144 under the Securities Act, are as follows:

| Approximate Number of Shares | First Date Available for Sale Into Public Market |
|---|---|
| shares | 180 days after the date of this prospectus |

### Lock-Up Agreements

In connection with this offering, we, our officers, directors and holders of substantially all of our outstanding shares of capital stock and other securities have agreed with the underwriters, subject to specified exceptions, not to offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any of our common stock or securities convertible into or exchangeable or exercisable for shares of our common stock, enter into a transaction which would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any such aforementioned transaction is to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose

the intention to make any such offer, sale, pledge or disposition, or to enter into any such transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of Credit Suisse Securities (USA) LLC and Cowen and Company, LLC prior to the date that is 180 days after the date of this prospectus.

This restriction terminates after the close of trading of the common shares on and including the 180th day after the date of this prospectus.

Credit Suisse Securities (USA) LLC and Cowen and Company, LLC may, in their sole discretion and at any time or from time to time before the termination of the 180-day period, without public notice, release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our stockholders who will execute a lock-up agreement, providing consent to the sale of shares prior to the expiration of the lock-up period.

**Rule 144**

In general, under Rule 144, as currently in effect, once we have been subject to the public company reporting requirements of the Exchange Act for at least 90 days, a person (or persons whose shares are required to be aggregated) who is not deemed to have been one of our "affiliates" for purposes of Rule 144 at any time during the three months preceding a sale, and who has beneficially owned restricted securities within the meaning of Rule 144 for at least six months, including the holding period of any prior owner other than one of our "affiliates," is entitled to sell those shares in the public market (subject to the lock-up agreement referred to above, if applicable) without complying with the manner of sale, volume limitations or notice provisions of Rule 144, but subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than "affiliates," then such person is entitled to sell such shares in the public market without complying with any of the requirements of Rule 144 (subject to the lock-up agreement referred to above, if applicable). In general, under Rule 144, as currently in effect, once we have been subject to the public company reporting requirements of the Exchange Act for at least 90 days, our "affiliates," as defined in Rule 144, who have beneficially owned the shares proposed to be sold for at least six months are entitled to sell in the public market, upon expiration of any applicable lock-up agreements and within any three-month period, a number of those shares of our common stock that does not exceed the greater of:

- 1% of the number of common shares then-outstanding, which will equal approximately shares of common stock immediately after this offering (calculated on the basis of the assumptions described above and assuming no exercise of the underwriter's option to purchase additional shares and no exercise of outstanding options); or

- 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 on Form 144 with respect to such sale.

Such sales under Rule 144 by our "affiliates" or persons selling shares on behalf of our "affiliates" are also subject to certain manner of sale provisions, notice requirements and to the availability of current public information about us. Notwithstanding the availability of Rule 144, the holders of substantially all of our restricted securities have entered into lock-up agreements as referenced above and their restricted securities will become eligible for sale (subject to the above limitations under Rule 144) upon the expiration of the restrictions set forth in those agreements.

**Rule 701**

In general, under Rule 701 as currently in effect, any of our employees, directors, officers, consultants or advisors who acquired common stock from us in connection with a written compensatory stock or option plan or other written agreement in compliance with Rule 701 under the Securities Act before the effective date of the registration statement of which this prospectus is a part (to the extent such common stock is not subject to a lock-up agreement) is entitled to rely on Rule 701 to resell such shares beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act in reliance on Rule 144, but without compliance with the holding period requirements contained in Rule 144. Accordingly, subject to any applicable lock-up agreements, beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act, under Rule 701 persons who are not our "affiliates," as defined in Rule 144, may resell those shares without complying with the minimum holding period or public information requirements of Rule 144, and persons who are our "affiliates" may resell those shares without compliance with Rule 144's minimum holding period requirements (subject to the terms of the lock-up agreement referred to above, if applicable).

**Registration Rights**

Based on the number of shares outstanding as of December 31, 2015, after the consummation of this offering, the holders of approximately 14.3 million shares of our common stock, or their transferees, will, subject to any lock-up agreements they have entered into, be entitled to certain rights with respect to the registration of the offer and sale of those shares under the Securities Act. For a description of these registration rights, please see the section titled "Description of Capital Stock—Registration Rights." If the offer and sale of these shares are registered, they will be freely tradable without restriction under the Securities Act.

**Equity Incentive Plans**

We intend to file with the SEC a registration statement under the Securities Act covering the shares of common stock that we may issue upon exercise of outstanding options under our 2014 Plan and the shares of common stock that we may issue pursuant to future awards under our 2016 Plan and under our 2016 Employee Stock Purchase Plan. Such registration statement is expected to be filed and become effective as soon as practicable after the completion of this offering. Accordingly, shares registered under such registration statement will be available for sale in the open market following its effective date, subject to Rule 144 volume limitations and the lock-up agreements described above, if applicable.

## MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following discussion is a summary of the material U.S. federal income tax consequences to Non-U.S. Holders (as defined below) of the purchase, ownership and disposition of our common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the U.S. Internal Revenue Code of 1986, as amended (Code), Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (IRS), in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-U.S. Holder. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to Non-U.S. Holders that hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a Non-U.S. Holder's particular circumstances, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons subject to the alternative minimum tax;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code; and
- tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

**INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.**

***Definition of Non-U.S. Holder***

For purposes of this discussion, a "Non-U.S. Holder" is any beneficial owner of our common stock that is neither a "U.S. person" nor an entity treated as a partnership for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and all substantial decisions of which are subject to the control of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

***Distributions***

As described in the section entitled "Dividend Policy," we do not anticipate paying any cash dividends in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a Non-U.S. Holder's adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under "—Sale or Other Taxable Disposition."

Subject to the discussion below on effectively connected income, dividends paid to a Non-U.S. Holder will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the Non-U.S. Holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such dividends are attributable), the Non-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

***Sale or Other Taxable Disposition***

Subject to the discussions below under "—Information Reporting and Backup Withholding" and "Additional Withholding Tax on Payments Made to Foreign Accounts," a Non-U.S. Holder will not be subject to U.S. federal income or withholding tax on any gain realized upon the sale or other taxable disposition of our common stock unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such gain is attributable);
- the Non-U.S. Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock constitutes a U.S. real property interest (USRPI) by reason of our status as a U.S. real property holding corporation (USRPHC) for U.S. federal income tax purposes.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by certain U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the United States), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a Non-U.S. Holder of our common stock will not be subject to U.S. federal income tax if our common stock is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market, and such Non-U.S. Holder owned, actually and constructively, 5% or less of our common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the Non-U.S. Holder's holding period.

Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

***Information Reporting and Backup Withholding***

Payments of dividends on our common stock will not be subject to backup withholding, provided the applicable withholding agent does not have actual knowledge or reason to know the holder is a United States person and the holder either certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any dividends on our common stock paid to the Non-U.S. Holder, regardless of whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our common stock within the United States or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting, if the applicable withholding agent receives the certification described above and does not have actual knowledge or reason to know that such holder is a United States person, or the holder otherwise establishes an exemption. Proceeds of a disposition of our

common stock conducted through a non-U.S. office of a non-U.S. broker that does not have certain enumerated relationships with the United States generally will not be subject to backup withholding or information reporting.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a Non-U.S. Holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

***Additional Withholding Tax on Payments Made to Foreign Accounts***

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act (FATCA) on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our common stock, and, beginning on January 1, 2019, will apply to payments of gross proceeds from the sale or other disposition of such stock.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our common stock.

## UNDERWRITING

Under the terms and subject to the conditions contained in an underwriting agreement dated , 2016, we have agreed to sell to the underwriters named below, for whom Credit Suisse Securities (USA) LLC and Cowen and Company, LLC are acting as representatives, the following respective numbers of shares of common stock:

| Underwriter | Number of Shares |
|---|---|
| Credit Suisse Securities (USA) LLC | |
| Cowen and Company, LLC | |
| Guggenheim Securities LLC | |
| BTIG, LLC | |
| Cantor Fitzgerald & Co. | |
| Total | |

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock in the offering if any are purchased, other than those shares covered by the over-allotment option described below. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering may be terminated.

We have granted to the underwriters a 30-day over-allotment option to purchase on a pro rata basis up to additional shares at the initial public offering price less the underwriting discounts and commissions. The option may be exercised only to cover any over-allotments of our common stock in this offering.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel including the validity of the shares, and subject to other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The offering of the shares by the underwriters is also subject to the underwriters' right to reject any order in whole or in part.

The underwriters propose to offer the shares of common stock initially at the public offering price on the cover page of this prospectus at that price less a selling concession of up to $ per share. The underwriters may allow a discount of $ per share on sales to other broker/dealers. After the initial public offering the representatives may change the public offering price and selling concession and discount to broker/dealers.

The following table summarizes the compensation we will pay:

| | Per Share | | Total | |
|---|---|---|---|---|
| | Without Over-allotment | With Over-allotment | Without Over-allotment | With Over-allotment |
| Underwriting discounts and commissions paid by us | $ | $ | $ | $ |

We estimate that our out of pocket expenses for this offering (not including any underwriting discounts and commissions) will be approximately $ million.

We have agreed to reimburse the underwriters for expenses of up to $40,000 related to clearance of this offering with the Financial Industry Regulatory Authority, Inc. (FINRA).

The underwriters have informed us that they do not expect sales to accounts over which the underwriters have discretionary authority to exceed 5% of the shares of common stock being offered.

We have agreed that we will not, directly or indirectly, take any of the following actions with respect to our common stock or any securities convertible into or exchangeable or exercisable for any

of our common stock: offer, sell, issue, contract to sell, pledge or otherwise dispose of our common stock or such securities; offer, sell, issue, contract to sell, contract to purchase or grant any option, right or warrant to purchase our common stock or such securities; enter into any swap, hedge or any other agreement that transfers, in whole or in part, the economic consequences of ownership of our common stock or such securities; establish or increase a put equivalent position or liquidate or decrease a call equivalent position in our common stock or such securities within the meaning of Section 16 of the Exchange Act; file with the Securities and Exchange Commission a registration statement under the Securities Act relating to our common stock or such securities; or publicly disclose the intention to take any of the foregoing actions; in each case, without the prior written consent of Credit Suisse Securities (USA) LLC and Cowen and Company, LLC, prior to the date that is 180 days after the date of this prospectus. The restrictions described in this paragraph do not apply to: (a) grants of employee stock options or other equity-based awards pursuant to the terms of our equity inventive plans; (b) issuances of shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock pursuant to the exercise of such options or other equity-based awards; (c) issuances of shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock pursuant to the conversion or exchange of convertible or exchangeable securities or the exercise of options or vesting of restricted stock; (d) issuances or sales of shares of our common stock or securities convertible into or exercisable for any shares of our common stock in connection with a debt or credit financing facility or equipment leasing arrangement; (e) issuances or sales of or entry into an agreement to sell or issue shares of our common stock or securities convertible into or exercisable for any shares of our common stock in connection with any (1) mergers, (2) acquisition of securities, businesses, property or other assets, (3) joint ventures or (4) collaborations, licensing or strategic alliances; provided, that the aggregate number of shares of securities (on as-converted or as-exercised basis, as the case may be) that we may sell or issue or agree to sell or issue pursuant to clauses (d) and (e), in each case, shall not exceed 5% of the total number of shares of our securities issued and outstanding immediately following the completion of this offering; or (f) the issuance of shares of our common stock in this offering; provided in the case of clauses (b), (c), (d) and (e), the recipients of such shares of our common stock or securities agree to (A) be bound by a lockup letter in the form executed by our directors, officers and existing securityholders and (B) enter stop transfer instructions for the Company's transfer agent and registrar on such securities, which the Company agrees it will not waive or amend without prior written consent.

Our officers, directors and holders of substantially all of our outstanding shares of capital stock and other securities have agreed with the underwriters not to offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, enter into a transaction that would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any of these transactions are to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of Credit Suisse Securities (USA) LLC and Cowen and Company, LLC prior to the date that is 180 days after the date of this prospectus. The restrictions described in this paragraph do not apply to:

(a) transfers of our common stock or other securities as a bona fide gift or gifts or by testate succession or intestate distribution;

(b) any shares of our common stock acquired by the lock-up signatory in the offering or in the open market following the offering;

(c) the exercise of stock options or other similar awards granted pursuant to our equity incentive plans, provided that such restrictions shall apply to any of the lock-up signatory's shares of our common stock issued upon such exercise;

(d) any shares of our common stock or such other securities that are transferred to us for the primary purpose of satisfying any tax or other governmental withholding obligation, through cashless surrender or otherwise, with respect to any award of equity-based compensation granted pursuant to our equity incentive plans or in connection with tax or other obligations as a result of testate succession or intestate distribution;

(e) the establishment of any contract, instruction or plan, that satisfies all of the requirements of Rule 10b5-1(c)(1)(i)(B) under the Exchange Act, provided that no sales of the lock-up signatory's shares of our common stock shall be made pursuant to such a plan prior to the expiration of the 180-day period referred to above;

(f) transfers not involving a disposition for value to a member or members of the lock-up signatory's family or to a trust, the direct or indirect beneficiaries of which are the lock-up signatory and/or a member or members of his or her family;

(g) transfers or dispositions of the lock-up signatory's shares of our common stock by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the lock-up signatory;

(h) distributions not involving a disposition for value of shares of our common stock or such other securities to members, partners or stockholders of the lock-up signatory or to any corporation, partnership or other person or entity that is a direct or indirect affiliate of the lock-up signatory (including, for the avoidance of doubt, a fund managed by the same manager or managing member or general partner or management company or by an entity controlling, controlled by, or under common control with such manager or managing member or general partner or management company as the undersigned or who shares a common investment advisor with the undersigned);

(i) the transfer or disposition of the lock-up signatory's shares of our common stock or any security convertible into or exercisable or exchangeable for shares of our common stock that occurs because of operation of law;

(j) if the lock-up signatory is an investment company registered under the Investment Company Act of 1940, as amended, transfers of the lock-up signatory's shares of our common stock pursuant to a merger or reorganization with or into another investment company registered under the Investment Company Act of 1940, as amended, that shares the same investment adviser registered pursuant to the requirements of the Investment Advisers Act of 1940, as amended;

(k) the transfer of the lock-up signatory's shares of our common stock or any security convertible into or exercisable or exchangeable for shares of our common stock to us pursuant to any contractual arrangement in effect on the date of the lock-up agreement that provides for the repurchase of the lock-up signatory's shares of our common stock or such other securities by us or in connection with the termination of the lock-up signatory's employment or other service relationship with us or the lock-up.

In the case of any transfer or distribution pursuant to clause (a), (f), (g), (h), (i) or (j) above, each donee, distributee or transferee must execute a lock-up letter containing the foregoing restrictions. In the case of any transfer or distribution pursuant to clause (a), (b) or (d) through (i), no filing by any party under Section 16 of the Exchange Act or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on Form 5 made after the expiration of the 180-day period referred to above and other than disclosures required by Form 13F, Schedule 13D or Schedule 13G that are not (A) triggered by a specific transaction and (B) required to be filed prior to the expiration of the 180-day period referred to above).

We have agreed to indemnify the several underwriters against liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect.

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

Prior to the offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the representatives. In determining the initial public offering price, we and the representatives expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the underwriters;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospects for future earnings;
- the recent market prices of, and demand for, publicly-traded common stock of generally comparable companies;
- the general condition of the securities markets at the time of the offering; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for our common stock, or that shares of our common stock will trade in the public market at or above the initial public offering price.

In connection with the offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions, penalty bids and passive market making in accordance with Regulation M under the Exchange Act.

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. If the underwriters sell more shares than could be covered by the over-allotment option or a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.
- In passive market making, market makers in the common stock who are underwriters or prospective underwriters may, subject to limitations, make bids for or purchases of our common stock until the time, if any, at which a stabilizing bid is made.

These stabilizing transactions, over-allotment transactions, syndicate covering transactions, penalty bids and passive market making may have the effect of raising or maintaining the market price of our

common stock or preventing or retarding a decline in the market price of the common stock. As a result the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on The NASDAQ Global Market or otherwise and, if commenced, may be discontinued at any time.

A prospectus in electronic format may be made available on the web sites maintained by one or more of the underwriters, or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations.

**Other relationships**

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future. The underwriters are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities.

## NOTICE TO INVESTORS

**Notice to prospective investors in the European Economic Area**

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter represents and agrees that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, it has not made and will not make an offer of shares which are the subject of the offering contemplated by this prospectus to the public in that Relevant Member State other than:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, 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 the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

**Notice to prospective investors in the United Kingdom**

Each of the underwriters severally represents, warrants and agrees as follows:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21 of the FSMA does not apply to us; and

(b) it has complied with, and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

**Notice to prospective investors in Switzerland**

This document is not intended to constitute an offer or solicitation to purchase or invest in the shares described herein. The shares may not be publicly offered, sold or advertised, directly or indirectly, in, into or from Switzerland and will not be listed on the SIX Swiss Exchange or on any other exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares constitutes a prospectus as such term is understood pursuant to article 652a or article 1156 of the Swiss Code of Obligations or a listing prospectus within the meaning of the listing rules of the SIX Swiss Exchange or any other regulated trading facility in Switzerland, and neither this document nor any other offering or marketing material relating to the shares may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, nor the Company nor the shares have been or will be filed with or approved by any Swiss regulatory authority. The shares are not subject to the supervision by any Swiss regulatory authority, e.g., the Swiss Financial Markets Supervisory Authority (FINMA), and investors in the shares will not benefit from protection or supervision by such authority.

**Notice to Canadian Residents**

***Resale Restrictions***

The distribution of shares of common stock in Canada is being made only in the provinces of Ontario, Quebec, Alberta and British Columbia on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the common stock in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

***Representations of Canadian Purchasers***

By purchasing shares of our common stock in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the shares of common stock without the benefit of a prospectus qualified under those securities laws as it is an "accredited investor" as defined under National Instrument 45-106—*Prospectus Exemptions*,
- the purchaser is a "permitted client" as defined in National Instrument 31-103—*Registration Requirements, Exemptions and Ongoing Registrant Obligations*,
- where required by law, the purchaser is purchasing as principal and not as agent, and
- the purchaser has reviewed the text above under Resale Restrictions.

***Conflicts of Interest***

Canadian purchasers are hereby notified that the underwriters are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105—*Underwriting Conflicts* from having to provide certain conflict of interest disclosure in this document.

***Statutory Rights of Action***

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the offering memorandum (including any amendment thereto) such as this document contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

***Enforcement of Legal Rights***

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process

within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

***Taxation and Eligibility for Investment***

Canadian purchasers of our common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the shares of common stock in their particular circumstances and about the eligibility of the shares of common stock for investment by the purchaser under relevant Canadian legislation.

## LEGAL MATTERS

The validity of the issuance of our common stock offered in this prospectus will be passed upon for us by Latham & Watkins LLP, Menlo Park, California. Certain matters in connection with this offering will be passed upon for the underwriters by Davis Polk & Wardwell LLP, Menlo Park, California. Latham & Watkins LLP and certain attorneys and investment funds affiliated with the firm collectively own an aggregate of 23,992 shares of our convertible preferred stock which will be converted into an aggregate of 23,992 shares of common stock immediately prior to the completion of this offering.

## EXPERTS

The financial statements of Corvus Pharmaceuticals, Inc. as of December 31, 2014 and 2015 and for the period from January 27, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015 included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm 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 offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information with respect to Corvus Pharmaceuticals, Inc. and the common stock offered hereby, reference is made to the registration statement and the exhibits and schedules filed therewith. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. A copy of the registration statement and the exhibits and schedules filed therewith may be inspected without charge at the public reference room maintained by the SEC, located at 100 F Street N.E., Room 1580, Washington, D.C. 20549, and copies of all or any part of the registration statement may be obtained from such offices upon the payment of the fees prescribed by the SEC. Please call the SEC at 1-800-SEC-0330 for further information about the public reference room. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address is www.sec.gov.

Upon completion of this offering, we will become subject to the information and periodic reporting requirements of the Exchange Act and, in accordance therewith, will file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information will be available for inspection and copying at the public reference room and website of the SEC referred to above. We maintain a website at www.corvusbiotech.com. You may access our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained on our website is not part of or incorporated by reference in this prospectus and you should not consider the contents of our website in making an investment decision with respect to our common stock.

**CORVUS PHARMACEUTICALS, INC.**

**INDEX TO FINANCIAL STATEMENTS**

**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Stockholders
of Corvus Pharmaceuticals, Inc.

In our opinion, the accompanying balance sheets and the related statements of operations and comprehensive loss, of changes in convertible preferred stock and stockholders' deficit, and of cash flows present fairly, in all material respects, the financial position of Corvus Pharmaceuticals, Inc. at December 31, 2014 and 2015 and the results of its operations and its cash flows for the period from January 27, 2014 (inception) to December 31, 2014 and for the year ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements 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. An audit 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 audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

San Jose, California

February 8, 2016

**Corvus Pharmaceuticals, Inc.**

**Balance Sheets**

**(In thousands, except share and per share data)**

| | December 31, 2014 | December 31, 2015 | Pro Forma Stockholders' Equity as of December 31, 2015 (See Note 2) (unaudited) |
|---|---|---|---|
| **Assets** | | | |
| Current assets: | | | |
| Cash and cash equivalents | $ 12,517 | $ 4,105 | |
| Marketable securities | — | 90,281 | |
| Prepaid and other current assets | 12 | 1,277 | |
| Total current assets | 12,529 | 95,663 | |
| Property and equipment, net | — | 1,845 | |
| Deferred offering costs | — | 951 | |
| Total assets | $ 12,529 | $ 98,459 | |
| **Liabilities, Convertible Preferred Stock, and Stockholders' (Deficit) Equity** | | | |
| Current liabilities: | | | |
| Accounts payable | $ 57 | $ 1,575 | |
| Accrued and other liabilities | 17 | 1,495 | |
| Convertible preferred stock liability | 2,600 | — | |
| Total current liabilities | 2,674 | 3,070 | |
| Other liabilities | 3 | 710 | |
| Total liabilities | 2,677 | 3,780 | |
| Commitments and contingencies *(Note 13)* | | | |
| Convertible preferred stock: $0.0001 par value; 8,921,438 and 14,274,741 shares authorized at December 31, 2014 and 2015, respectively; 3,395,468 and 14,274,741 issued and outstanding at December 31, 2014 and 2015, respectively (liquidation preference of $12,750 and $108,500 at December 31, 2014 and 2015, respectively); 10,000,000 shares authorized, no shares issued or outstanding pro forma (unaudited) | 10,011 | 125,780 | — |
| Stockholders' (deficit) equity: | | | |
| Common stock: $0.0001 par value; 11,500,000 and 20,000,000 shares authorized at December 31, 2014 and 2015, respectively; 1,046,749 and 1,431,615 shares issued and outstanding at December 31, 2014 and 2015, respectively; 290,000,000 shares authorized, 15,706,356 shares issued and outstanding at December 31, 2015, pro forma (unaudited) | — | — | $ 2 |
| Additional paid-in capital | 2 | 440 | 126,218 |
| Accumulated other comprehensive loss | — | (45) | (45) |
| Accumulated deficit | (161) | (31,496) | (31,496) |
| Total stockholders' (deficit) equity | (159) | (31,101) | $ 94,679 |
| Total liabilities, convertible preferred stock and stockholders' (deficit) equity | $ 12,529 | $ 98,459 | |

The accompanying notes are an integral part of these financial statements.

**Corvus Pharmaceuticals, Inc.**

**Statements of Operations and Comprehensive Loss**

**(In thousands, except share and per share data)**

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| Operating expenses: | | |
| Research and development | $ 38 | $ 11,352 |
| General and administrative | 123 | 2,418 |
| Total operating expenses | 161 | 13,770 |
| Loss from operations | (161) | (13,770) |
| Change in fair value of convertible preferred stock liability | — | (17,600) |
| Interest income | — | 35 |
| Net loss | $ (161) | $ (31,335) |
| Net loss per share, basic and diluted | $ (0.95) | $ (83.86) |
| Shares used to compute net loss per share, basic and diluted | 170,278 | 373,643 |
| Pro forma net loss per share, basic and diluted (unaudited) | $ (0.30) | $ (1.54) |
| Shares used to compute pro forma net loss per share, basic and diluted (unaudited) | 530,859 | 8,894,425 |
| Other comprehensive loss: | | |
| Unrealized loss on marketable securities | — | (45) |
| Total other comprehensive loss | — | (45) |
| Comprehensive loss | $ (161) | $ (31,380) |

The accompanying notes are an integral part of these financial statements.

**Corvus Pharmaceuticals, Inc.**

**Statements of Changes in Convertible Preferred Stock and Stockholders' Deficit**

**(In thousands, except share data)**

| | Convertible Preferred Stock | | Common Stock | | Additional Paid-In Capital | Accumulated Other Comprehensive Income | Accumulated Deficit | Total Stockholders' Deficit |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | | | | |
| **Balance at January 27, 2014 (inception)** | — | $ — | — | $ — | $ — | $ — | $ — | $ — |
| Issuance of common stock to founders, net of repurchase | — | — | 1,046,749 | — | 2 | — | — | 2 |
| Issuance of Series A convertible preferred stock for cash, net of issuance costs of $139 and convertible preferred stock liability of $2,600 | 3,395,468 | 10,011 | — | — | — | — | — | — |
| Net loss | — | — | — | — | — | — | (161) | (161) |
| **Balance at December 31, 2014** | 3,395,468 | 10,011 | 1,046,749 | — | 2 | — | (161) | (159) |
| Issuance of Series A convertible preferred stock, net of issuance costs of $20 | 5,525,961 | 20,730 | — | — | — | — | — | — |
| Reclassification of convertible preferred stock liability | — | 20,200 | — | — | — | — | — | — |
| Issuance of Series B convertible preferred stock, net of issuance costs of $161 | 5,353,312 | 74,839 | — | — | — | — | — | — |
| Issuance of common stock for cash upon early exercise of stock options and lapse of restrictions | — | — | 384,866 | — | 10 | — | — | 10 |
| Stock-based compensation expense | — | — | — | — | 428 | — | — | 428 |
| Unrealized loss on marketable securities | — | — | — | — | — | (45) | — | (45) |
| Net loss | — | — | — | — | — | | (31,335) | (31,335) |
| **Balance at December 31, 2015** | 14,274,741 | $ 125,780 | 1,431,615 | $ — | $ 440 | $ (45) | $ (31,496) | $ (31,101) |

The accompanying notes are an integral part of these financial statements.

**Corvus Pharmaceuticals, Inc.**

**Statements of Cash Flows**

**(In thousands)**

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| **Cash flows from operating activities** | | |
| Net loss | $ (161) | $ (31,335) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Depreciation | — | 148 |
| Amortization/accretion related to marketable securities | — | (41) |
| Stock-based compensation | — | 428 |
| Change in fair value of convertible preferred stock liability | — | 17,600 |
| Other | — | 40 |
| Changes in operating assets and liabilities: | | |
| Prepaid and other current assets | (12) | (1,265) |
| Accounts payable | 57 | 1,240 |
| Accrued and other liabilities | 17 | 1,218 |
| Other long-term liabilities | 3 | 639 |
| Net cash used in operating activities | (96) | (11,328) |
| **Cash flows from investing activities** | | |
| Purchases of marketable securities | — | (104,385) |
| Maturities of marketable securities | — | 14,100 |
| Purchase of property and equipment | — | (1,747) |
| Net cash used in investing activities | — | (92,032) |
| **Cash flows from financing activities** | | |
| Proceeds from issuance of common stock, net of repurchase | 2 | — |
| Proceeds from issuance of convertible preferred stock, net of issuance costs | 12,611 | 95,569 |
| Payment of offering costs | — | (729) |
| Proceeds from exercise of common stock options | — | 108 |
| Net cash provided by financing activities | 12,613 | 94,948 |
| Net increase (decrease) in cash and cash equivalents | 12,517 | (8,412) |
| Cash and cash equivalents at beginning of the period | — | 12,517 |
| Cash and cash equivalents at end of the period | $ 12,517 | $ 4,105 |
| **Supplemental disclosures of cash flow information:** | | |
| Convertible preferred stock issuance costs incurred but not paid | $ 36 | $ — |
| Purchases of property and equipment incurred but not paid | — | 286 |
| Convertible preferred stock liability | 2,600 | — |
| Deferred offering costs incurred but not paid | — | 222 |

The accompanying notes are an integral part of these financial statements.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements**

## 1. Organization

Corvus Pharmaceuticals, Inc. ("Corvus" or the "Company") was incorporated in Delaware on January 27, 2014 and commenced operations in November 2014. Corvus is a clinical stage biopharmaceutical company focused on the development and commercialization of novel immuno-oncology therapies that are designed to harness the immune system to attack cancer cells. The Company's primary activities have been establishing its facilities, recruiting personnel, conducting research and development of its product candidates, including preparing for a clinical trial, and raising capital. The Company's operations are located in Burlingame, California.

## 2. Summary of Significant Accounting Policies

### *Basis of Presentation*

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The Company's functional and reporting currency is the U.S. dollar. The accompanying financial statements have been prepared on a going-concern basis, which contemplates the realization of assets and discharge of liabilities in the normal course of business. Since its inception, the Company has incurred significant losses and negative cash flows from operations. As of December 31, 2015, the Company had an accumulated deficit of $31.5 million and cash, cash equivalents and marketable securities of $94.4 million. The Company has financed its operations primarily with the proceeds from the sale of convertible preferred stock. The Company will need to raise additional capital to meet its business objectives.

### *Use of Estimates*

The preparation of the Company's financial statements in conformity with U.S. GAAP 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.

### *Unaudited Pro Forma Stockholders' Equity*

The unaudited pro forma stockholders' equity has been prepared assuming the automatic conversion of all outstanding shares of convertible preferred stock into shares of common stock immediately upon completion of the Company's initial public offering ("IPO"). The unaudited pro forma stockholders' equity does not assume the receipt of any proceeds from the proposed IPO.

### *Reverse Stock Split*

In conjunction with the convertible preferred stock issuance in November 2014, the Company's Board of Directors approved filing an amendment to the Certificate of Incorporation to reflect a 0.13312-for-1 reverse stock split of the Company's outstanding common stock. The par value per share was not adjusted as a result of the reverse stock split. All authorized, issued and outstanding shares of common stock, and related per share amounts contained in the financial statements, have been retroactively adjusted to reflect this reverse stock split for all periods presented.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

***Concentrations of Credit Risk and Other Risks and Uncertainties***

Substantially all of the Company's cash and cash equivalents are deposited in accounts with two financial institutions that management believes are of high credit quality. Such deposits may, at times, exceed federally insured limits. The Company maintains its cash with an accredited financial institution and accordingly, such funds are subject to minimal credit risk. The Company's marketable securities are direct obligations of the United States government. The Company has not experienced any losses on its deposits of cash, cash equivalents or marketable securities. The Company has no off-balance sheet concentrations of credit risk, such as foreign currency exchange contracts, option contracts or other hedging arrangements.

Since inception, the Company has incurred net losses and negative cash flows from operations. During the year ended December 31, 2015, the Company incurred a net loss of $31.3 million and used $11.3 million of cash in operations. At December 31, 2015, the Company had an accumulated deficit of $31.5 million and does not expect to experience positive cash flows from operations in the near future. The Company has financed operations to date primarily through private placements of convertible preferred stock.

The Company is subject to a number of risks similar to other early stage biopharmaceutical companies, including, but not limited to, the need to obtain adequate additional funding, possible failure of preclinical testing or clinical trials, its reliance on third parties to conduct its clinical trials, the need to obtain marketing approval for its product candidates, competitors developing new technological innovations, the need to successfully commercialize and gain market acceptance of the Company's product candidates, its right to develop and commercialize its product candidates pursuant to the terms and conditions of the licenses granted to the Company, and protection of proprietary technology. If the Company does not successfully commercialize or partner any of its product candidates, it will be unable to generate product revenue or achieve profitability.

***Segments***

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker in making decisions regarding resource allocation and assessing performance. The Company views its operations and manages its business in one operating segment, that of the development of and commercialization of novel immuno-oncology therapies that are designed to harness the immune system to attack cancer cells.

***Cash and Cash Equivalents and Marketable Securities***

The Company considers all highly liquid investment securities with remaining maturities at the date of purchase of three months or less to be cash equivalents.

Investments with remaining maturities, at the date of purchase, greater than three months, but less than one year are considered short-term. The Company determines the appropriate classification of marketable securities at the time of purchase and evaluates such designation as of each balance sheet date. To date, all marketable securities have been classified as available-for-sale and are carried at fair value with unrealized gains and losses, if any, included as a component of accumulated other comprehensive income (loss) in stockholders' deficit. Interest and realized gains and losses are included

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

in interest income. Realized gains and losses are recognized based on the specific identification method.

***Fair Value Measurements***

Fair value accounting is applied for all financial assets and liabilities and non-financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). The carrying amount of the Company's financial instruments, including cash equivalents, accounts payable and accrued liabilities, approximate fair value due to their short-term maturities. The convertible preferred stock liability is carried at fair value.

***Deferred Offering Costs***

Deferred offering costs consist primarily of direct incremental costs related to the Company's initial public offering of its common stock. Upon completion of the initial public offering, these amounts will be offset against the proceeds of the offering. If the offering is terminated, the deferred offering costs will be expensed.

***Property and Equipment, Net***

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the respective assets:

| | |
|---|---|
| Laboratory equipment | 5 years |
| Computer equipment and purchased software | 3 years |
| Leasehold improvements | Shorter of asset's useful life or remaining term of lease |

Maintenance and repairs that do not extend the life or improve the asset are expensed when incurred. When assets are retired or otherwise disposed of, the cost and accumulated depreciation are removed from the balance sheet and any resulting gain or loss is reflected in operations.

***Impairment of Long-Lived Assets***

The Company regularly reviews the carrying value and estimated lives of all of its long-lived assets, including property and equipment, to determine whether indicators of impairment may exist which warrant adjustments to carrying values or estimated useful lives. The determinants used for this evaluation include management's estimate of the asset's ability to generate positive income from operations and positive cash flow in future periods as well as the strategic significance of the assets to the Company's business objectives. Should impairment exist, the impairment loss to be recognized is measured by the amount by which the carrying amount of the asset exceeds the projected discounted future net cash flows arising from the asset. All long-lived assets are maintained in the United States of America.

***Convertible Preferred Stock Liability***

The Company has determined that the Company's obligation to issue additional shares of the Company's convertible preferred stock represents a freestanding financial instrument, which was accounted for as a liability. The freestanding convertible preferred stock liability was initially recorded

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

at fair value, with fair value changes recognized in the statements of operations and comprehensive loss. The Company estimated the fair value of this liability using an option-pricing model that included assumptions for future financings, expected volatility, expected life and risk-free interest rate. At the time of the exercise of the option, the remaining value of the convertible preferred stock liability was reclassified to convertible preferred stock with no further remeasurement required.

***Research and Development Expense***

The Company records research and development expenses as incurred. 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 goods have been received or when the service has been performed rather than when the payment is made. Research and development expenses consist of costs incurred by the Company for the discovery and development of the Company's product candidates and include:

- employee-related expenses, including salaries, benefits, travel and non-cash stock-based compensation expense;
- external research and development expenses incurred under arrangements with third parties, such as contract research organizations, contract manufacturing organizations, academic and non-profit institutions and consultants;
- costs to acquire technologies to be used in research and development that have not reached technological feasibility and have no alternative future use;
- license fees; and
- other expenses, which include direct and allocated expenses for laboratory, facilities and other costs.

***Clinical Trial Accruals***

Costs for preclinical studies and clinical trial activities are recognized based on an evaluation of the vendors' progress towards completion of specific tasks, using data such as clinical site activations, patient enrollment or information provided to the Company by its vendors regarding their actual costs incurred. Payments for these activities are based on the terms of individual contracts and payment timing may differ significantly from the period in which the services are performed. The Company determines accrual estimates through reports from and discussions with applicable personnel and outside service providers as to the progress or state of completion, or the services completed. The Company's estimates of accrued expenses as of each balance sheet date are based on the facts and circumstances known at the time.

***Stock-Based Compensation***

The Company maintains incentive plans under which incentive stock options and nonqualified stock options may be granted to employees and non-employee service providers.

The Company accounts for stock-based employee compensation arrangements in accordance with the provisions of ASC 718, "*Compensation—Stock Compensation*." For stock options granted to employees, the Company recognizes compensation expense for all stock-based awards based on the

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

grant-date estimated fair values, net of an estimated forfeiture rate. The value of the portion of the award that is ultimately expected to vest is recognized as an expense ratably over the requisite service period. The fair value of stock options is determined using the Black-Scholes option pricing model. The Company estimates its forfeiture rate and will continue to evaluate the adequacy of the forfeiture rate assumption.

Stock-based compensation expense related to stock options granted to non-employees is recognized based on the fair value of the stock options, determined using the Black-Scholes option pricing model. The expense for options granted to non-employees is periodically re-measured as the underlying options vest. The awards generally vest over the time period the Company expects to receive service from the non-employee.

***Income Taxes***

The Company accounts for income taxes under the asset and liability method. The Company estimates actual current tax exposure together with assessing temporary differences resulting from differences in accounting for reporting purposes and tax purposes for certain items, such as accruals and allowances not currently deductible for tax purposes. These temporary differences result in deferred tax assets and liabilities, which are included in the Company's balance sheets. In general, deferred tax assets represent future tax benefits to be received when certain expenses previously recognized in the Company's statements of operations and comprehensive loss become deductible expenses, under applicable income tax laws or when net operating loss or credit carryforwards are utilized. Accordingly, realization of the Company's deferred tax assets is dependent on future taxable income against which these deductions, losses and credits can be utilized.

The Company must assess the likelihood that the Company's deferred tax assets will be recovered from future taxable income and a valuation allowance is recorded when it is more likely than not that the deferred tax asset will not be recovered. The Company applies judgment in the determination of the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Based on the available evidence, the Company is unable, at this time, to support the determination that it is more likely than not that its deferred tax assets will be utilized in the future. Accordingly, the Company recorded a full valuation allowance for all periods presented. The Company intends to maintain valuation allowances until sufficient evidence exists to support its reversal. The Company recognizes any material interest and penalties related to unrecognized tax benefits in income tax expense.

The Company recognizes benefits of uncertain tax positions if it is more likely than not such positions will be sustained upon examination based solely on their technical merits as the largest amount of benefit that is more likely than not to be realized upon the ultimate settlement. The Company is required to file income tax returns in the U.S. federal jurisdiction. The Company currently is not under examination by the Internal Revenue Service or other jurisdictions for any tax years.

***Comprehensive Loss***

Comprehensive loss includes net loss as well as other changes in stockholders' equity (deficit) that result from transactions and economic events other than those with stockholders. The Company's only element of other comprehensive loss in any period presented was unrealized losses on available for sale marketable securities.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

***Net Loss per Share***

Basic net loss per share is calculated by dividing the net loss by the weighted average number of common shares outstanding during the period, without consideration of potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss by the weighted average number of common shares and potentially dilutive securities outstanding for the period. For purposes of the diluted net loss per share calculation, the convertible preferred stock, common stock subject to repurchase, and stock options are considered to be potentially dilutive securities. Because the Company has reported a net loss for all periods presented, diluted net loss per common share is the same as basic net loss per common share for those periods.

***Unaudited Pro Forma Net Loss per Share***

The unaudited pro forma basic and diluted net loss per share reflects the automatic conversion of all outstanding shares of convertible preferred stock as if the conversion had occurred at the beginning of the earliest period presented or the date of issuance, if later. In addition, the unaudited pro forma net loss per share adjusts net loss for the change in fair value of the convertible preferred stock liability. The unaudited pro forma basic and diluted net loss per share amounts do not give effect to the issuance of shares from the proposed IPO nor do they give effect to potential issuances of dilutive securities where the impact would be anti-dilutive.

***Recent Accounting Pronouncements***

In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU 2014-09, *Revenue from Contracts with Customers*, which required an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. ASU 2014-09 will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. The new standard is effective January 1, 2018 for public companies. Early application is permitted as of January 1, 2017. The standard permits the use of either the retrospective or cumulative effect transition method. The Company does not believe adopting ASU 2014-09 will have a material impact on its financial statements as the Company is not yet generating revenues.

In August 2014, the FASB issued Accounting Standards Update No. 2014-15, *Disclosure of Uncertainties About an Entity's Ability to Continue as a Going Concern*. This standard update provides guidance around management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. The new guidance is effective for all annual and interim periods ending after December 15, 2016. The Company does not believe that adopting ASU 2014-15 will have a material impact on its financial statements.

In November 2015, the FASB issued Accounting Standards Update No 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*. This standard amends the accounting for income taxes and requires all deferred tax assets and liabilities to be classified as non-current on the balance sheet. The new standard is effective for reporting periods beginning after December 15, 2016, with early adoption permitted. The standard may be adopted either prospectively or retrospectively. We are currently evaluating the impact of ASU 2015-17.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

### 3. Net Loss per Share and Unaudited Pro Forma Net Loss per Share

The following table shows the calculation of net loss per share (in thousands, except share and per share data):

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| Numerator: | | |
| Net loss—basic and diluted | $ (161) | $ (31,335) |
| Denominator: | | |
| Weighted average common shares outstanding | 641,046 | 1,269,315 |
| Less: weighted average common shares subject to repurchase | (470,768) | (895,672) |
| Weighted average common shares used to compute basic and diluted net loss per share | 170,278 | 373,643 |
| Net loss per share, basic and diluted | $ (0.95) | $ (83.86) |

The amounts in the table below were excluded from the calculation of diluted net loss per share, due to their anti-dilutive effect:

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| Convertible preferred stock | 3,395,468 | 14,274,741 |
| Common stock subject to repurchase | 768,706 | 924,535 |
| Outstanding options | 32,320 | 784,136 |
| Total shares of common stock equivalents | 4,196,494 | 15,983,412 |

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**3. Net Loss per Share and Unaudited Pro Forma Net Loss per Share (Continued)**

***Unaudited Pro Forma Net Loss Per Share, Basic and Diluted***

The following table summarizes unaudited pro forma net loss per share (in thousands, except share and per share data):

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| Numerator: | | |
| Net loss | $ (161) | $ (31,335) |
| Change in fair value of convertible preferred stock liability | — | 17,600 |
| Pro forma net loss | $ (161) | $ (13,735) |
| Denominator: | | |
| Weighted average common shares outstanding, basic and diluted | 170,278 | 373,643 |
| Pro forma adjustments to reflect assumed conversion of convertible preferred stock | 360,581 | 8,520,782 |
| Pro forma weighted average common shares outstanding, basic and diluted | 530,859 | 8,894,425 |
| Pro forma net loss per share, basic and diluted | $ (0.30) | $ (1.54) |

**4. Fair Value Measurements**

Financial assets and liabilities are measured and recorded at fair value. 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 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—Quoted prices in active markets for identical assets or liabilities

Level 2—Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly

Level 3—Unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**4. Fair Value Measurements (Continued)**

The following tables present information as of December 31, 2014 and December 31, 2015 about the Company's assets that are measured at fair value on a recurring basis and indicate the level of the fair value hierarchy the Company utilized to determine such fair values (in thousands):

| | December 31, 2014 | | | |
|---|---|---|---|---|
| | Fair Value Measured Using | | | Total Balance |
| | (Level 1) | (Level 2) | (Level 3) | |
| **Assets** | | | | |
| Cash equivalents | $ 12,311 | $ — | $ — | $ 12,311 |
| **Liabilities** | | | | |
| Convertible preferred stock liability | $ — | $ — | $ 2,600 | $ 2,600 |

| | December 31, 2015 | | | |
|---|---|---|---|---|
| | Fair Value Measured Using | | | Total Balance |
| | (Level 1) | (Level 2) | (Level 3) | |
| **Assets** | | | | |
| Cash equivalents | $ 3,245 | $ — | $ — | $ 3,245 |
| Marketable securities | 90,281 | — | — | 90,281 |
| | $ 93,526 | $ — | $ — | $ 93,526 |

The Company's marketable securities are invested in direct obligations of the United States government for all periods.

As of December 31, 2015, marketable securities had a maximum remaining maturity of nine months and consisted of U.S. Treasury securities.

The fair value measurement of the convertible preferred stock call option liability was based on significant inputs not observed in the market and thus represents a Level 3 measurement. Level 3 instruments are valued based on unobservable inputs that are supported by little or no market activity and reflect the Company's assumptions in measuring fair value. See Note 8 for a further discussion of the convertible preferred stock liability.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**4. Fair Value Measurements (Continued)**

The following table presents the issuances, changes in fair value, exercise and reclassification of the Company's Level 3 financial instrument which is measured at fair value on a recurring basis (in thousands):

| | Convertible Preferred Stock Call Option Liability |
|---|---|
| **Balance as of January 27, 2014 (inception)** | $ — |
| Fair value of convertible preferred stock liability recognized upon issuance of convertible preferred stock | 2,600 |
| **Balance as of December 31, 2014** | 2,600 |
| Change in fair value of convertible preferred stock liability through date of Series A second tranche issuance | 17,600 |
| Recognition of fair value upon issuance of second tranche Series A convertible preferred stock | (20,200) |
| **Balance as of December 31, 2015** | $ — |

As of December 31, 2015, the fair value of available for sale marketable securities by type of security were as follows (in thousands):

| | December 31, 2015 | | | |
|---|---|---|---|---|
| | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value |
| U.S. Treasury securities | $ 90,326 | $ — | $ 45 | $ 90,281 |

**5. License and Collaboration Agreements**

***Scripps Licensing Agreement***

In December 2014, the Company entered into a license agreement with The Scripps Research Institute ("Scripps"), pursuant to which it was granted a non-exclusive, world-wide license for all fields of use under Scripps' rights in certain know-how and technology related to a mouse hybridoma clone expressing an anti-human CD73 antibody, and to progeny, mutants or unmodified derivatives of such hybridoma and any antibodies expressed by such hybridoma. Scripps also granted the Company the right to grant sublicenses in conjunction with other proprietary rights the Company holds, or to others collaborating with or performing services for the Company. Under this license agreement, Scripps has agreed not to grant any additional commercial licenses with respect to such materials, other than march-in rights granted to the U.S. government.

Upon execution of the agreement, the Company made a one-time cash payment to Scripps of $10,000 in 2015 and is also obligated to pay a minimum annual fee to Scripps of $25,000. The one-time cash payment was recorded as research and development expense as technological feasibility of the asset had not been established and there was no alternative future use. The first minimum annual fee payment is due on the first anniversary of effective date of the agreement and will be due on each subsequent anniversary of the effective date for the term of the agreement. The Company is also required to make performance-based cash payments upon successful completion of clinical and sales milestones. The aggregate potential milestone payments are $2.6 million. The Company is also required

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**5. License and Collaboration Agreements (Continued)**

to pay royalties on net sales of licensed products sold by it, its affiliates and its sublicensees at a rate in the low-single digits. In addition, should the Company sublicense the rights licensed under the agreement, it has agreed to pay a percentage of sublicense revenue received at specified rates that start at double digit percentages and decrease to single digit percentages based on the elapsed time from the effective date of the agreement and the time of entry into such sublicense.

The Company's license agreement with Scripps will terminate upon expiration of its obligation to pay royalties to Scripps under the license agreement. The Company's license agreement with Scripps is terminable by the consent of the parties, at will by the Company upon providing 90 days written notice to Scripps, or by Scripps for certain material breaches, or if the Company undergoes a bankruptcy event. In addition, Scripps may terminate the license on a product-by-product basis, or the entire agreement, if the Company fails to meet specified diligence obligations related to the development and commercialization of licensed products. Scripps may also terminate the agreement after the third anniversary of the effective date of the agreement if it reasonably believes, based on reports the Company provides to Scripps, that the Company has not used commercially reasonable efforts as required under the agreement, subject to a specified notice and cure period.

***Vernalis Licensing Agreement***

In February 2015, as amended November 5, 2015, the Company entered into a license agreement with Vernalis (R&D) Limited ("Vernalis"), pursuant to which the Company was granted an exclusive, worldwide license under certain patent rights and know-how, including a limited right to grant sublicenses, for all fields of use to develop, manufacture and commercialize products containing certain adenosine receptor antagonists, including CPI-444. Pursuant to this agreement, a one-time cash payment to Vernalis in the amount of $1.0 million, which was recorded as research and development expense as technological feasibility of the asset had not been established and there was no alternative future use. The Company is also required to make cash milestone payments to Vernalis upon the successful completion of clinical and regulatory milestones for licensed products depending on the indications for which such licensed products are developed and upon achievement of certain sales milestones. The aggregate potential milestone payments exceed $200 million for all indications.

The Company has also agreed to pay Vernalis tiered incremental royalties based on the annual net sales of licensed products containing CPI-444 on a product-by-product and country-by-country basis, subject to certain offsets and reductions. The tiered royalty rates for products containing CPI-444 range from the mid-single digits up to the low-double digits on a country-by-country net sales basis. The royalties on other licensed products that do not include CPI-444 also increase with the amount of net sales on a product-by-product and country-by-country basis and range from the low-single digits up to the mid-single digits on a country-by-country net sales basis. The Company is also obligated to pay to Vernalis certain sales milestones as indicated above when worldwide net sales reach specified levels over an agreed upon time period.

The agreement will expire on a product-by-product and country-by-country basis upon the expiration of the Company's payment obligations to Vernalis in respect of a particular product and country. Both parties have the right to terminate the agreement for an uncured material breach by the other party. The Company may also terminate the agreement at its convenience by providing 90 days written notice, provided that the Company has not received notice of its own default under the agreement at the time the Company exercises such termination right. Vernalis may also terminate the agreement if the Company challenges a licensed patent or undergoes a bankruptcy event.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**5. License and Collaboration Agreements (Continued)**

***Genentech Collaboration Agreement***

In October 2015, the Company entered into a clinical trial collaboration agreement with Genentech to evaluate the safety, tolerability and preliminary efficacy of CPI-444 combined with Genentech's investigational cancer immunotherapy, atezolizumab (MPDL3280A), a fully humanized monoclonal antibody targeting PDL-1, in a variety of solid tumors in a Phase 1/1b clinical trial. Pursuant to this agreement, the Company will be responsible for the conduct and cost of the relevant studies, under the supervision of a joint development committee made up of representatives of the Company and representatives of Genentech. Genentech will supply atezolizumab. As part of the agreement, the Company granted Genentech certain rights of first negotiation to participate in future clinical trials that the Company may conduct evaluating the administration of CPI-444 in combination with an anti-PD-1 or anti-PDL-1 antibody. If the Company and Genentech do not reach agreement on the terms of any such participation by Genentech within a specified time period, the Company retains the right to collaborate with third parties in such activities. The Company also granted Genentech certain rights of first negotiation should it decide to license development and commercialization rights to CPI-444. Should the Company and Genentech not reach agreement on the terms of such a license within a specified time period, it retains the right to enter into a license with another third party.

The Company and Genentech each have the right to terminate the agreement for material breach by the other party. In addition, the agreement may be terminated by either party due to safety considerations, if directed by a regulatory authority or if development of CPI-444 or atezolizumab is discontinued.

Further, the agreement will expire after a set period of time following the provision by the Company of the final clinical study report to Genentech.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

## 6. Balance Sheet Components (in thousands):

| Prepaid and Other Current Assets | December 31, 2014 | December 31, 2015 |
|---|---|---|
| Prepaid research and development manufacturing expenses | $ — | $ 722 |
| Tenant improvement allowance receivable | — | 347 |
| Other | 12 | 208 |
| | $ 12 | $ 1,277 |

| Property and Equipment, net | | |
|---|---|---|
| Laboratory equipment | $ — | $ 829 |
| Computer equipment and purchased software | — | 18 |
| Leasehold improvements | — | 74 |
| Construction in progress | — | 1,059 |
| | — | 1,980 |
| Less: accumulated depreciation and amortization | — | (135) |
| | $ — | $ 1,845 |

| Accrued and Other Liabilities | | |
|---|---|---|
| Personnel related | $ 17 | $ 305 |
| Accrued legal and accounting | — | 314 |
| Accrued clinical trial related | — | 376 |
| Deferred rent | — | 223 |
| Accrued construction in progress costs | — | 101 |
| Other accrued expenses | — | 176 |
| | $ 17 | $ 1,495 |

| Other Liabilities | | |
|---|---|---|
| Deferred rent | $ 0 | $ 642 |
| Shares subject to vesting | 3 | 68 |
| | $ 3 | $ 710 |

## 7. Convertible Preferred Stock

Under the amended and restated certificate of incorporation in effect as of December 31, 2015, the Company is authorized to issue two classes of stock: convertible preferred stock and common stock.

Convertible preferred stock consisted of the following (in thousands, except share data):

| | December 31, 2014 | | | |
|---|---|---|---|---|
| | Shares Authorized | Shares Issued & Outstanding | Net Carrying Value | Liquidation Value |
| Series A | 8,921,438 | 3,395,468 | $ 10,011 | $ 12,750 |

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**7. Convertible Preferred Stock (Continued)**

| | December 31, 2015 | | | |
|---|---|---|---|---|
| | Shares Authorized | Shares Issued & Outstanding | Net Carrying Value | Liquidation Value |
| Series A | 8,921,429 | 8,921,429 | $ 50,941 | $ 33,500 |
| Series B | 5,353,312 | 5,353,312 | 74,839 | 75,000 |
| Total | 14,274,741 | 14,274,741 | $ 125,780 | $ 108,500 |

The rights, preferences and privileges of the convertible preferred stock (Series A & B) are summarized below.

***Conversion***

Shares of convertible preferred stock are convertible into common stock based on a defined conversion ratio, which was set at one-for-one, adjustable for certain dilutive events. No such adjustment had occurred as of December 31, 2014 or December 31, 2015.

The convertible preferred stock is convertible at the option of the holder at any time without any additional consideration, and all shares automatically convert into shares of common stock upon the closing of the sale of shares of common stock in an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "Securities Act"), pursuant to which at least $50 million in the aggregate of such common stock is issued, prior to deductions for underwriting discounts, commissions and expenses, or (ii) the vote of the holders of at least 60% of the voting power of all then outstanding shares of convertible preferred stock (voting together as a single class and not as separate series, and on an as-converted to common stock basis); provided, however that the outstanding shares of Series B convertible preferred stock shall not be automatically converted into shares of common stock pursuant such vote without the affirmative vote or written consent of the holders of at least 60% of the outstanding shares of Series B convertible preferred stock, consenting or voting as a single class.

***Dividends***

Each holder of convertible preferred stock is entitled to receive non-cumulative dividends, when and if declared by the Company's board of directors, at a rate of 8% of the original issue price prior to and in preference to the declaration or payment of a dividend on common stock. After convertible preferred holders have received their dividend preferences, any additional dividends are to be paid to the holders of common stock and convertible preferred on an as converted, pari passu basis. No dividends have been declared to date.

***Liquidation Preference***

In the event of a liquidation, dissolution or winding up of the Company either voluntarily or involuntarily, or if any event occurs that is deemed a liquidation under the Company's amended and restated certificate of incorporation, as amended, each holder of convertible preferred stock will be entitled to receive, on a pari-passu basis, the liquidation preference for each share out of any proceeds available for distribution to stockholders before any distributions are made to the holders of common stock. The liquidation preference for each share of the convertible preferred stock is equal to the original issue price for such series (plus any declared but unpaid dividends). If upon such liquidation, dissolution or winding up of the Company or deemed liquidation, the assets available for distribution to

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**7. Convertible Preferred Stock (Continued)**

stockholders are insufficient to pay in full holders of the convertible preferred stock amounts to which they are entitled, the holders of convertible preferred stock shall share ratably in any assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect to the shares held by them. Following payment in full to the holders of convertible preferred stock, the remaining assets and funds of the Company, if any, shall be divided among and paid ratably to the holders of common stock and convertible preferred stock in proportion to the number of shares held by them on an as converted basis.

A consolidation or merger of the Company with or into any other corporation or corporations, acquisition by any other corporation or corporations, or a sale of all or substantially all of the assets or voting control of the Company in which the prior stockholders of the Company do not own a majority of the outstanding shares of the surviving corporation is deemed to be a liquidation.

The Company classifies its convertible preferred stock outside of permanent equity as certain change in control events are outside the Company's control.

***Voting Rights***

The convertible preferred stock votes on an as-converted to common stock basis with the other voting stock of the Company. Certain actions specified in the certificate of incorporation require the consent of the holders of at least 60% of the voting power of all then outstanding shares of convertible preferred stock (voting together as a single class and not as separate series, and on an as-converted to common stock basis).

In addition, the stockholders of the Company have entered into a voting agreement pursuant to which three of the holders of Series A convertible preferred stock are permitted to each designate one member of the Company's board of directors, which right expires upon an IPO.

**8. Convertible Preferred Stock Liability**

On November 26, 2014, the Company executed the Series A Convertible Preferred Stock Purchase Agreement for the issuance of up to 8,921,438 shares of Series A convertible preferred stock and issued 3,395,468 shares for net proceeds of $12.6 million in connection with the first closing of the first tranche. In January 2015, in connection with the second closing of the first tranche, the Company issued 1,065,246 shares of Series A convertible preferred stock for net proceeds of $4.0 million and in June 2015, in connection with the closing of the second tranche, an additional 4,460,715 shares of Series A convertible preferred stock were issued for net proceeds of $16.7 million.

The Series A Convertible Preferred Stock Purchase Agreement provided that, upon the earliest to occur of any of three defined triggers, each investor of the first tranche agreed to purchase its pro-rata portion of the shares to be issued in the second tranche and the Company agreed to sell and issue said shares of Series A convertible preferred stock on the same terms as the first tranche.

A convertible preferred stock liability was recorded for the Company's obligation to sell the second tranche of the Series A convertible preferred stock to the first tranche stockholders at a fixed price of $3.755 per share upon the satisfaction of certain conditions. A liability was recorded in connection with the first tranche of the Series A convertible preferred stock financing at its initial estimated fair value of $2.6 million, with gains and losses arising from changes in fair value recognized in the statements of operations at each period while such instrument was classified as a liability. A $17.6 million charge was recorded for the change in estimated fair value of the Series A convertible preferred stock liability for the period from January 1, 2015 to the closing of the second tranche in June 2015. Upon the closing of

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**8. Convertible Preferred Stock Liability (Continued)**

the second tranche in June 2015, the liability terminated and the balance of the liability of $20.2 million was reclassified to convertible preferred stock.

The preferred stock liability related to Series A convertible preferred stock was valued at issuance and at December 31, 2014 using a backsolve option-pricing method based on the consideration paid for the Series A convertible preferred stock and the convertible preferred stock liability using an assumed term of 1.0 years, an interest rate of 0.13% and a volatility of 85%.

Immediately prior to its exercise on June 10, 2015, the convertible preferred stock liability's fair value was estimated based on its intrinsic value, with the fair value of the Series A convertible preferred stock estimated as of June 10, 2015 and compared to the exercise price of the Series A convertible preferred stock liability.

To estimate the fair value of the Series A convertible preferred stock as of June 10, 2015, the enterprise value of the Company was estimated based on potential IPO and sale estimates. The enterprise value was then allocated to the various classes of securities using an option pricing model that assumed a term of two years to a liquidity event, an interest rate of 0.75% and a volatility of 75% based on market conditions and expectations as of the June valuation date.

**9. Common Stock**

As of December 31, 2015, the amended and restated certificate of incorporation authorizes the Company to issue 20 million shares of common stock.

Each share of common stock is entitled to one vote, subject to certain voting rights of the convertible preferred stock. Common stockholders are entitled to dividends if and when declared by the board of directors subject to the prior rights of the convertible preferred stockholders. As of December 31, 2015, no dividends on common stock had been declared.

In March and August 2014, the Company sold a net amount of 1,046,749 shares of fully vested common stock to its founders ("founders' stock"), who are related parties, for approximately $5,000.

In November 2014, in conjunction with the sale of its Series A convertible preferred stock, the Company and the founders agreed to subject 75% of each founders' stock to vesting requirements. Under the related stock restriction agreements, the Company has the right to repurchase the common stock, which right lapses monthly over four years. In order to vest, the holders are required to provide continued service to the Company. Upon vesting, the appropriate amounts are transferred from liabilities to additional paid-in capital. If the holder of any restricted common stock is terminated for any reason, the Company has the right to repurchase the unvested shares at the stockholder's original purchase price. The vesting of the restricted common stock is contingent upon continued service to the Company and therefore, accounted for as compensation in accordance with the provisions of ASC 718, "*Compensation—Stock Compensation*." The compensation expense related to the vesting of the restricted common stock was not material for all periods presented.

In addition, the Company's 2014 Equity Incentive Plan (the "2014 Plan") allows for the early exercise of stock options. Options exercised prior to vesting are subject to repurchase at the original price, in accordance with the original vesting schedule of the options. These repurchase terms are considered to be a forfeiture provision. The cash received from employees for exercise of unvested options is treated as a refundable deposit and is classified as a liability on the balance sheets. Upon vesting, the appropriate amounts are transferred from liabilities to permanent equity.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**9. Common Stock (Continued)**

As of December 31, 2014 and December 31, 2015, 768,706 and 924,535 shares remained subject to repurchase, respectively and approximately $4,000 and $102,000, respectively, were recorded as liabilities pertaining to the stock restriction agreements and early exercised stock options.

The Company reserved shares of common stock on an as-converted basis, for issuance as follows:

| | December 31, 2014 | December 31, 2015 |
|---|---|---|
| Convertible preferred stock | 8,921,438 | 14,274,741 |
| Unvested restricted common stock (founders and early exercise of stock options) | 768,706 | 924,535 |
| Outstanding options | 32,320 | 784,136 |
| Shares available for future option grants | 837,547 | 2,559,499 |
| Total | 10,560,011 | 18,542,911 |

**10. Stock Option Plan**

In February 2014, the Company adopted the 2014 Plan, which was subsequently amended in November 2014, July 2015 and September 2015, under which it may grant incentive stock options, non-statutory stock options, stock purchase rights and other stock-based awards. Terms of stock agreements, including vesting requirements, are determined by the board of directors or a committee authorized by the board of directors, subject to the provisions of the 2014 Plan. In general, awards granted by the Company vest over four years and have maximum exercise term of 10 years. The 2014 Plan provides that grants must be at an exercise price of 100% of fair market value of the Company's common stock as determined by the board of directors on the date of the grant.

A summary of the Company's stock option activity for the period from January 27, 2014 (inception) to December 31, 2015, is as follows:

| | | Options Outstanding | |
|---|---|---|---|
| | Shares Available for Grant | Number of Options | Weighted-Average Exercise Price |
| Balance at January 27, 2014 (inception) | — | — | $ — |
| Shares authorized for plan | 869,867 | | |
| Granted | (32,320) | 32,320 | 0.28 |
| Balance at December 31, 2014 | 837,547 | 32,320 | 0.28 |
| Additional shares authorized for plan | 2,858,634 | — | |
| Granted | (1,150,182) | 1,150,182 | 2.88 |
| Exercised | — | (384,866) | 0.28 |
| Forfeited | 13,500 | (13,500) | 0.28 |
| Balance at December 31, 2015 | 2,559,499 | 784,136 | $ 4.09 |

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**10. Stock Option Plan (Continued)**

The following table summarizes information about stock options outstanding at December 31, 2015:

| | Options Outstanding | | Options Vested | |
|---|---|---|---|---|
| Exercise Price | Number | Weighted Average Remaining Contractual Life (in Years) | Number | Weighted Average Remaining Contractual Life (in Years) |
| $0.28 - 4.65 | 629,136 | 9.54 | 9,637 | 9.06 |
| $6.75-15.79 | 155,000 | 10.00 | — | — |
| | 784,136 | 9.63 | 9,637 | 9.06 |

The weighted average grant date fair value of options granted during the period of January 27, 2014 (inception) through December 31, 2014 was $0.22 and $4.37 for the year ended December 31, 2015.

Options outstanding and exercisable that had vested or were expected to vest at December 31, 2015 were as follows:

| | Number of Shares | Weighted-Average Exercise Price | Weighted-Average Remaining Contractual Life (Years) | Aggregate Intrinsic Value (In thousands) |
|---|---|---|---|---|
| Vested | 9,637 | $ 0.28 | 9.06 | $ 149 |
| Expected to vest | 634,347 | $ 3.93 | 9.62 | $ 7,522 |

In the table above, aggregate intrinsic value represent the difference between the exercise price of the options to purchase common stock and the estimated fair value of the Company's common stock of $15.79.

The aggregate intrinsic value of stock options exercised in the year ended December 31, 2015 was $714,000.

The total fair value of options that vested in the period January 27, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015 were $100 and $75,428, respectively.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

## 11. Stock-Based Compensation

The Company's results of operations include expenses relating to employee and non-employee stock-based awards as follows (in thousands):

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| Research and development | $ — | $ 292 |
| General and administrative | — | 136 |
| Total | $ — | $ 428 |

***Valuation Assumptions***

The fair value of share-based awards to employees was estimated using the Black-Scholes option pricing model using the following weighted-average assumptions:

| | Period from January 27, 2014 (inception) to December 31, 2014 | Year Ended December 31, 2015 |
|---|---|---|
| Risk-free interest rate | 1.7% | 1.7% |
| Expected volatility | 97% | 83.3% |
| Expected term (in years) | 6.1 | 6.1 |
| Expected dividend yield | 0% | 0% |

***Fair Value of Common Stock***

The Company uses significant estimates and assumptions in determining the fair value of its common stock. The Company recorded expense for stock option grants at exercise prices not less than the fair market value of its common stock as determined by management with consideration of the American Institute of Certified Public Accountants ("AICPA") Accounting and Valuation Guide, *Valuation of Privately-Held Company Equity Securities Issued as Compensation.* The estimated fair value of the Company's common stock was based on a number of objective and subjective factors, including the Company's current financial condition, anticipated expenses, the market value of stock or equity interests in similar corporations and other entities engaged in businesses substantially similar to those engaged in by the Company, the present value of anticipated future cash flows of the Company, valuations of comparable companies, financing prospects, current and potential strategic relationships, competitive developments and related matters, the aggregate liquidation preference of the Company's convertible preferred stock, the price at which shares of the Company's outstanding capital stock have previously been issued by the Company, the current market and venture capital financing environment and the lack of marketability of the Company's common stock.

**Risk-free Interest Rate:** The Company based the risk-free interest rate over the expected term of the options based on the constant maturity rate of U.S. Treasury securities with similar maturities as of the date of the grant.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**11. Stock-Based Compensation (Continued)**

**Volatility:** The Company used an average historical stock price volatility of comparable public companies within the biotechnology and pharmaceutical industry that were deemed to be representative of future stock price trends as the Company is not a public company and does not have any trading history for its common stock.

**Expected Term:** The Company uses the simplified method prescribed in the ASC 718, *Compensation—Stock Compensation*, to calculate the expected term of options granted to employees and directors.

**Expected Dividends:** The Company has not paid and does not anticipate paying any dividends in the near future.

At December 31, 2014 and 2015, the unrecognized compensation expense associated with respect to options granted to employees was $4,800 and $4.7 million, respectively, and is expected to be recognized on a straight-line basis over 3.74 and 3.64 years, respectively.

Stock-based compensation expense related to awards to non-employees is recognized based on the then-current fair value at each measurement date over the associated service period of the award, which is generally the vesting term, on a straight line basis. The Company used the Black-Scholes valuation model to assist it in determining the fair value of stock-based awards. Stock-based compensation expense for non-employees was $— and $428,000 for the period January 27, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015, respectively. For the year ended December 31, 2015 the following assumptions were used in the valuation of non-employee stock options: risk free interest rate of 1.8%-2.2%, expected life of 9.1-10 years, dividend yield of 0% and expected volatility of 82.0%-84.7%.

**12. Income Taxes**

During 2014 and 2015, the Company recorded no income tax benefits for the net operating losses (NOLs) incurred due to the uncertainty of realizing a benefit from those items.

As of December 31, 2015, the Company had federal NOL carryforwards of approximately $11.7 million and state NOL carryforwards of approximately $11.7 million which are available to reduce future taxable income. The NOLs will begin to expire in 2034, if not utilized.

As of December 31, 2015, the Company also had $0.3 million of federal and $0.3 million of state research and development tax credit carryforwards available to reduce future income taxes. The federal research and development tax credits will begin to expire in 2035, if not utilized. The state research and development tax credits have no expiration date.

Utilization of NOL carryforwards and credits may be subject to an annual limitation due to the ownership change provisions provided by the Internal Revenue Code of 1986, as amended ("Code"), and similar state provisions. An annual limitation may result in the expiration of NOLs and credits before utilization. During the third quarter of 2015, the Company issued a new series of convertible preferred stock that in conjunction with other preferred stock issuances may have created an ownership change under these provisions of the Code and similar state provisions. As of December 31, 2015, utilization of NOLs and credits are not expected to expire unused in the carryforward period as a result of these recent issuances of convertible preferred shares.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**12. Income Taxes (Continued)**

A reconciliation of the Company's effective tax rate to the U.S. Federal statutory rate is as follows:

| | December 31, 2014 | December 31, 2015 |
|---|---|---|
| Federal tax benefit at statutory rate | 34% | 34% |
| State tax, net of Federal benefit | 6 | 3 |
| Loss due to change in fair value of convertible preferred stock liability | — | (19) |
| Change in valuation allowance | (40) | (18) |
| Effective income tax rate | —% | —% |

The effective tax rate is different from the federal statutory tax rate primarily due to a valuation allowance against deferred tax assets as a result of the Company's history of losses.

The principal components of the Company's net deferred tax assets are as follows (in thousands):

| | December 31, 2014 | December 31, 2015 |
|---|---|---|
| Deferred tax assets: | | |
| Net operating loss carryforwards | $ 22 | $ 4,671 |
| Tax credit carryforwards | — | 445 |
| Capitalized tax assets | 36 | 528 |
| Accruals | 6 | 108 |
| Other | — | 114 |
| Total deferred tax assets | 64 | 5,866 |
| Valuation allowance | (64) | (5,866) |
| Net deferred tax assets | $ — | $ — |

The Company recorded a valuation allowance against its deferred tax assets at December 31, 2014 and 2015 because Company management believed that it was more likely than not that these assets would not be fully realized. The valuation allowance increased by approximately $5.8 million. Changes in the valuation allowance for deferred tax assets relate primarily to the increase in the Company's net operating loss carryforward.

As of December 31, 2015, the Company had unrecognized tax benefits ("UTBs") of approximately $0.1 million. All of the deferred tax assets associated with these UTBs are fully offset by a valuation allowance. The following table summarizes the activity related to UTBs:

| | December 31, 2015 |
|---|---|
| Unrecognized tax benefits beginning of the period | $ — |
| Increase (decrease) related to the prior year | — |
| Increase related to the current year | 135 |
| Unrecognized tax benefits, end of the period | $ 135 |

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**12. Income Taxes (Continued)**

The Company follows the provisions of ASC 740, *Accounting for Income Taxes*, and the accounting guidance related to accounting for uncertainty in income taxes. The Company determines its uncertain tax positions 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 sustained upon examination by the relevant income tax authorities. The Company will recognize both accrued interest and penalties related to unrecognized benefits in income tax expense. 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.

**13. Commitments and Contingencies**

***Facility Lease***

In January 2015, the Company signed an operating lease, effective February 1, 2015, for 8,138 square feet of office and laboratory space located in Burlingame, California with a one-year term. In March 2015, the Company signed the first amendment to the lease, effective April 15, 2015, whereby the original premises were expanded by an additional 3,163 square feet and the lease term was extended through January 2017. In August 2015, the Company signed the second amendment to the lease whereby the size of the existing premises was increased by adding 10,834 square feet and the term of the lease was extended through the date that is 60 months after the date at which rent begins on the second expansion space premises. Rent commences on the earlier of substantial completion of the tenant improvements or February 17, 2016. The landlord agreed to provide $1.6 million to fund qualifying tenant improvements, defined as building design, permits and construction costs. The Company estimates tenant improvements associated with the tenant improvement allowance will be approximately $1.6 million. The lease agreement includes an annual rent escalation clause, a right to extend the term at the then current market rate for three years and a right of first refusal on certain space. The Company records rent expense on a straight-line basis over the effective term of the lease, including any free rent periods and incentives. The lease requires the Company to pay additional amounts for operating and maintenance expenses. Rent expense related to the facilities lease for the year ended December 31, 2015 was approximately $347,000.

The Company leases its facilities under a non-cancelable operating lease that expires in 2021.

As of December 31, 2015, future minimum lease payments under the facility lease were as follows (in thousands):

| | |
|---|---|
| 2016 | $ 726 |
| 2017 | 821 |
| 2018 | 848 |
| 2019 | 873 |
| 2020 | 900 |
| Thereafter | 113 |
| Total | $ 4,281 |

Pursuant to the Company's license agreements with each of Vernalis and Scripps, it has obligations to make future milestone and royalty payments to these parties, respectively. However, because these

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**13. Commitments and Contingencies (Continued)**

amounts are contingent and not fixed or determinable, they have not been included on the Company's balance sheet or in the table above.

***Indemnifications***

In the ordinary course of business, the Company enters into agreements that may include indemnification provisions. Pursuant to such agreements, the Company may indemnify, hold harmless and defend an indemnified party for losses suffered or incurred by the indemnified party. Some of the provisions will limit losses to those arising from third-party actions. In some cases, the indemnification will continue after the termination of the agreement. The maximum potential amount of future payments the Company could be required to make under these provisions is not determinable. The Company has never incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. The Company has also entered into indemnification agreements with its directors and officers that may require the Company to indemnify its directors and officers against liabilities that may arise by reason of their status or service as directors or officers to the fullest extent permitted by Delaware corporate law. There have been no claims to date and the Company has a directors and officers insurance policy that may enable it to recover a portion of any amounts paid for future claims.

***Legal Proceedings***

The Company is not a party to any material legal proceedings.

**14. 401(k) Plan**

In April 2015, 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- and post-tax contributions up to the maximum allowable amount set by the IRS. The Company does not make matching contributions to the 401(k) plan on behalf of participants.

**15. Subsequent Events**

The Company's board of directors and shareholders approved, on December 21, 2015 and January 15, 2016, respectively, the amendment and restatement of the Company's certificate of incorporation to increase the number of convertible preferred stock and common stock authorized thereunder to 10,000,000 shares and 290,000,000 shares, respectively, effective as of immediately prior to the consummation of the Company's initial public offering.

In December 2015, the Company's board of directors adopted, subject to the approval of the Company's stockholders, the 2016 Equity Incentive Award Plan (the "2016 Plan"), which will become effective immediately prior to the consummation of the Company's initial public offering and will serve as a successor to the 2014 Plan. 3,051,750 shares of the Company's common stock will be available for issuance under the 2016 Plan, plus (i) an annual increase on the first day of each fiscal year beginning in 2017 and ending in 2026 and (ii) all shares that are subject to outstanding options under the 2014 Plan on the completion of this offering that thereafter expire, terminate, or otherwise are forfeited or reacquired, up to a maximum of 1,136,229 shares.

**Corvus Pharmaceuticals, Inc.**

**Notes to Financial Statements (Continued)**

**15. Subsequent Events (Continued)**

In December 2015, the Company's board of directors adopted, subject to the approval of the Company's stockholders, the 2016 Employee Stock Purchase Plan (the "ESPP"), which will become effective immediately prior to the consummation of the Company's initial public offering. 200,000 shares of the Company's common stock will be available for future grant or issuance under the ESPP, plus an annual increase on the first day of each fiscal year beginning in 2017 and ending in 2026.

The Company has evaluated subsequent events through February 8, 2016.

Table of Contents

**Through and including , 2016 (the 25th day after the date of this prospectus), all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.**

Shares


Common Stock

**PROSPECTUS**

**Credit Suisse** **Cowen and Company**

**Guggenheim Securities**

**Cantor Fitzgerald & Co.** **BTIG**

, 2016

## PART II

## Information Not Required in Prospectus

### Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the sale of common stock being registered. All amounts are estimates except for the Securities and Exchange Commission, or SEC, registration fee, the FINRA filing fee and The NASDAQ Global Market listing fee.

| Item | Amount to be paid |
|---|---|
| SEC registration fee | $ 11,580.50 |
| FINRA filing fee | * |
| The NASDAQ Global Market Listing fee | * |
| Printing and engraving expenses | * |
| Legal fees and expenses | * |
| Accounting fees and expenses | * |
| Blue Sky, qualification fees and expenses | * |
| Transfer Agent fees and expenses | * |
| Miscellaneous expenses | * |
| Total | $ * |

* To be completed by amendment.

### Item 14. Indemnification of Directors and Officers.

As permitted by Section 102 of the Delaware General Corporation Law, we have adopted provisions in our amended and restated certificate of incorporation and bylaws that limit or eliminate the personal liability of our directors for a breach of their fiduciary duty of care as a director. The duty of care generally requires that, when acting on behalf of the corporation, directors exercise an informed business judgment based on all material information reasonably available to them. Consequently, a director will not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any act related to unlawful stock repurchases, redemptions or other distributions or payment of dividends; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not affect the availability of equitable remedies such as injunctive relief or rescission. Our amended and restated certificate of incorporation also authorizes us to indemnify our officers, directors and other agents to the fullest extent permitted under Delaware law.

As permitted by Section 145 of the Delaware General Corporation Law, our amended and restated bylaws provide that:

- we may indemnify our directors, officers, and employees to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions;

- we may advance expenses to our directors, officers and employees in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions; and

- the rights provided in our amended and restated bylaws are not exclusive.

Our amended and restated certificate of incorporation, to be attached as Exhibit 3.2 hereto, and our amended and restated bylaws, to be attached as Exhibit 3.4 hereto, provide for the indemnification provisions described above and elsewhere herein. We intend to enter into separate indemnification agreements with our directors and officers which may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements generally require us, among other things, to indemnify our officers and directors against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct. These indemnification agreements also generally require us to advance any expenses incurred by the directors or officers as a result of any proceeding against them as to which they could be indemnified. In addition, we have purchased a policy of directors' and officers' liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment in some circumstances. These indemnification provisions and the indemnification agreements may be sufficiently broad to permit indemnification of our officers and directors for liabilities, including reimbursement of expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

The form of Underwriting Agreement, to be attached as Exhibit 1.1 hereto, provides for indemnification by the underwriters of us and our officers who sign this Registration Statement and directors for specified liabilities, including matters arising under the Securities Act.

**Item 15. Recent Sales of Unregistered Securities.**

The following list sets forth information as to all securities we have sold since January 27, 2014, which were not registered under the Securities Act.

1. In March 2014, we issued an aggregate of 465,918 shares of our common stock to founders at a price per share of $0.00075, for a total amount raised of $350. In August 2014, we repurchased 76,876 shares of common stock issued to one of our founders at the original price per share.

2. In August 2014, we issued an aggregate of 657,707 shares of our common stock at a price per share of $0.00745 for total proceeds of approximately $4,900.

3. In November 2014, January 2015 and June 2015, we issued an aggregate of 8,921,429 shares of our Series A convertible preferred stock at a price per share $3.755, for total net proceeds of $33.3 million.

4. In September 2015, we issued an aggregate of 5,353,312 shares of our Series B convertible preferred stock at a price per share of $14.01 for total net proceeds of $74.8 million.

5. We granted stock options and stock awards to employees, directors and consultants under our 2014 Equity Incentive Plan, covering an aggregate of 1,182,502 shares of common stock, at a weighted-average average exercise price of $2.8088 per share. Of these, options covering an aggregate of 13,500 shares were cancelled without being exercised.

6. We sold an aggregate of 384,866 shares of common stock to employees, directors and consultants for cash consideration in the aggregate amount of approximately $107,800 upon the exercise of stock options and stock awards.

We claimed exemption from registration under the Securities Act for the sale and issuance of securities in the transactions described in paragraphs (1), (2), (3) and (4) by virtue of Section 4(a)(2) and/or Regulation D promulgated thereunder as transactions not involving any public offering. All of the purchasers of unregistered securities for which we relied on Section 4(a)(2) and/or Regulation D represented that they were accredited investors as defined under the Securities Act. We claimed such exemption on the basis that (a) the purchasers in each case represented that they intended to acquire the securities for investment only and not with a view to the distribution thereof and that they either received adequate information about the registrant or had access, through employment or other relationships, to such information and (b) appropriate legends were affixed to the stock certificates issued in such transactions.

We claimed exemption from registration under the Securities Act for the sales and issuances of securities in the transactions described in paragraphs (5) and (6) above under Section 4(a)(2) of the Securities Act in that such sales and issuances did not involve a public offering or under Rule 701 promulgated under the Securities Act, in that they were offered and sold either pursuant to written compensatory plans or pursuant to a written contract relating to compensation, as provided by Rule 701.

**Item 16. Exhibits and Financial Statement Schedules.**

**(a) Exhibits.** See the Exhibit Index attached to this registration statement, which is incorporated by reference herein.

**(b) Financial Statement Schedules.** Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

**Item 17. Undertakings.**

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 SEC such indemnification is against public policy as expressed in the Securities 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 of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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.

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.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Amendment No 1. to the Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Burlingame, California on February 8, 2016.

**Corvus Pharmaceuticals, Inc.**

By: /s/ RICHARD A. MILLER

Richard A. Miller, M.D.
*President and Chief Executive Officer*

Pursuant to the requirements of the Securities Act, this Amendment No 1. to the Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

| Signature | Title | Date |
|---|---|---|
| /s/ RICHARD A. MILLER<br>Richard A. Miller, M.D. | President, Chief Executive Officer and Director *(Principal Executive Officer)* | February 8, 2016 |
| /s/ LEIV LEA<br>Leiv Lea | Chief Financial Officer *(Principal Financial and Accounting Officer)* | February 8, 2016 |
| *<br>Elisha P. (Terry) Gould III | Director | February 8, 2016 |
| *<br>Steve E. Krognes | Director | February 8, 2016 |
| *<br>Peter Moldt, Ph.D. | Director | February 8, 2016 |
| *<br>Scott W. Morrison | Director | February 8, 2016 |
| *<br>Peter Thompson, M.D. | Director | February 8, 2016 |

*By: /s/ RICHARD A. MILLER

Richard A. Miller, M.D.
*Attorney-in-Fact*

## EXHIBIT INDEX

| Exhibit Number | Exhibit Description | Incorporated by Reference | | | Filed Herewith |
|---|---|---|---|---|---|
| | | Form | Date | Number | |
| 1.1 | Form of Underwriting Agreement. | | | | X |
| 3.1 | Amended and Restated Certificate of Incorporation, as amended, currently in effect. | S-1 | 1/4/2016 | 3.1 | |
| 3.2 | Form of Amended and Restated Certificate of Incorporation, to be in effect immediately prior to the consummation of this offering. | S-1 | 1/4/2016 | 3.2 | |
| 3.3 | Bylaws, currently in effect. | S-1 | 1/4/2016 | 3.3 | |
| 3.4 | Form of Amended and Restated Bylaws, to be in effect immediately prior to the consummation of this offering. | S-1 | 1/4/2016 | 3.4 | |
| 4.1 | Reference is made to exhibits 3.1 through 3.4. | | | | |
| 4.2 | Form of Common Stock Certificate. | S-1 | 1/4/2016 | 4.2 | |
| 4.3 | Amended and Restated Investors' Rights Agreement, dated September 16, 2015, by and among Corvus Pharmaceuticals, Inc. and the investors listed therein. | | | | X |
| 5.1* | Opinion of Latham & Watkins LLP. | | | | |
| 10.2(a) | Office Lease, dated as of January 27, 2015, by and between Corvus Pharmaceuticals, Inc. and ARE-819/863 Mitten Road, LLC. | S-1 | 1/4/2016 | 10.2(a) | |
| 10.2(b) | First Amendment to Office Lease, dated as of March 19, 2015, by and between Corvus Pharmaceuticals, Inc. and ARE-819/863 Mitten Road, LLC. | S-1 | 1/4/2016 | 10.2(b) | |
| 10.2(c) | Second Amendment to Office Lease, dated as of August 20, 2015, by and between Corvus Pharmaceuticals, Inc. and ARE-819/863 Mitten Road, LLC. | S-1 | 1/4/2016 | 10.2(c) | |
| 10.4(a)# | 2014 Equity Incentive Plan. | S-1 | 1/4/2016 | 10.4(a) | |
| 10.4(b)# | Amendment to the 2014 Equity Incentive Plan, dated November 26, 2014. | S-1 | 1/4/2016 | 10.4(b) | |
| 10.4(c)# | Amendment to the 2014 Equity Incentive Plan, dated July 24, 2015. | S-1 | 1/4/2016 | 10.4(c) | |
| 10.4(d)# | Amendment to the 2014 Equity Incentive Plan, dated September 14, 2015. | S-1 | 1/4/2016 | 10.4(d) | |
| 10.4(e)# | Form of Stock Option Grant Notice and Stock Option Agreement under the 2014 Equity Incentive Award Plan. | S-1 | 1/4/2016 | 10.4(e) | |

| Exhibit Number | Exhibit Description | Incorporated by Reference | | | Filed Herewith |
|---|---|---|---|---|---|
| | | Form | Date | Number | |
| 10.4(f)# | Form of Restricted Stock Purchase Right Grant Notice and Restricted Stock Purchase Agreement under the 2014 Equity Incentive Plan. | S-1 | 1/4/2016 | 10.4(f) | |
| 10.5(a)# | 2016 Equity Incentive Award Plan. | | | | X |
| 10.5(b)# | Form of Stock Option Grant Notice and Stock Option Agreement under the 2016 Equity Incentive Award Plan. | S-1 | 1/4/2016 | 10.5(b) | |
| 10.5(c)# | Form of Restricted Stock Award Agreement and Restricted Stock Award Grant Notice under the 2016 Equity Incentive Award Plan. | S-1 | 1/4/2016 | 10.5(c) | |
| 10.5(d)# | Form of Restricted Stock Unit Award Agreement and Restricted Stock Unit Award Grant Notice under the 2016 Equity Incentive Award Plan. | S-1 | 1/4/2016 | 10.5(d) | |
| 10.6# | Form of Indemnification Agreement for directors and officers. | S-1 | 1/4/2016 | 10.6 | |
| 10.7# | Amended and Restated Employment Agreement, dated as of December 22, 2015, by and between Corvus Pharmaceuticals, Inc. and Richard A. Miller. | S-1 | 1/4/2016 | 10.7 | |
| 10.8# | Amended and Restated Employment Agreement, dated as of December 22, 2015, by and between Corvus Pharmaceuticals, Inc. and Leiv Lea. | S-1 | 1/4/2016 | 10.8 | |
| 10.9(a)# | Offer Letter, dated as of November 27, 2014, by and between Corvus Pharmaceuticals, Inc. and William B. Jones. | S-1 | 1/4/2016 | 10.9(a) | |
| 10.9(b)# | Change in Control and Severance Agreement, dated December 23, 2015, by and between Corvus Pharmaceuticals, Inc. and William B. Jones. | S-1 | 1/4/2016 | 10.9(b) | |
| 10.10(a)# | Offer Letter, dated as of December 28, 2014, by and between Corvus Pharmaceuticals, Inc. and Erik J. Verner. | S-1 | 1/4/2016 | 10.10(a) | |
| 10.10(b)# | Change in Control and Severance Agreement, dated December 23, 2015, by and between Corvus Pharmaceuticals, Inc. and Erik J. Verner. | S-1 | 1/4/2016 | 10.10(b) | |
| 10.11# | Corvus Pharmaceuticals, Inc. Employee Stock Purchase Plan. | S-1 | 1/4/2016 | 10.11 | |
| 10.12# | Non-Employee Director Compensation Program. | S-1 | 1/4/2016 | 10.12 | |

| Exhibit Number | Exhibit Description | Incorporated by Reference | | | Filed Herewith |
|---|---|---|---|---|---|
| | | Form | Date | Number | |
| 10.13(a)#† | License Agreement, dated February 25, 2015, by and between Corvus Pharmaceuticals, Inc. and Vernalis (R&D) Limited. | | | | X |
| 10.13(b)#† | Amendment to License Agreement dated November 5, 2015, by and between Corvus Pharmaceuticals, Inc. and Vernalis (R&D) Limited. | S-1 | 1/4/2016 | 10.13(b) | |
| 10.14#† | License Agreement, dated December 20, 2014, by and between Corvus Pharmaceuticals, Inc. and The Scripps Research Institute. | S-1 | 1/4/2016 | 10.14 | |
| 10.15#† | Collaboration Agreement, dated October 5, 2015, by and between Corvus Pharmaceuticals, Inc. and Genentech, Inc. | | | | X |
| 23.1 | Consent of Independent Registered Public Accounting Firm. | | | | X |
| 23.2* | Consent of Latham & Watkins LLP (included in Exhibit 5.1). | | | | |
| 24.1 | Power of Attorney. | S-1 | 1/4/2016 | 24.1 | |
| 24.2 | Power of Attorney. | | | | X |

* To be filed by amendment.

† Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment and this exhibit has been filed separately with the SEC.

# Indicates management contract or compensatory plan.

**Exhibit 1.1**

**Shares Common Stock**

**Corvus Pharmaceuticals, Inc.**

**UNDERWRITING AGREEMENT**

, 2016

CREDIT SUISSE SECURITIES (USA) LLC
COWEN AND COMPANY, LLC ,
As Representatives of the Several Underwriters,
c/o Credit Suisse Securities (USA) LLC,
Eleven Madison Avenue,
New York, N.Y. 10010-3629
c/o Cowen and Company, LLC,
599 Lexington Avenue
New York, N.Y. 10022

Dear Sirs:

1. *Introductory*. Corvus Pharmaceuticals, Inc., a Delaware corporation ("**Company**"), agrees with the several Underwriters named in Schedule A hereto ("**Underwriters**"), for whom Credit Suisse Securities (USA) LLC and Cowen and Company, LLC are acting as representatives ("**Representatives**"), to issue and sell to the several Underwriters shares ("**Firm Securities**") of its common stock, par value $0.0001 per share ("**Securities**") and also proposes to issue and sell to the Underwriters, at the option of the Underwriters, an aggregate of not more than additional shares ("**Optional Securities**") of its Securities as set forth below. The Firm Securities and the Optional Securities are herein collectively called the "**Offered Securities**".

2. *Representations and Warranties of the Company*. The Company represents and warrants to, and agrees with, the several Underwriters that:

(a) *Filing and Effectiveness of Registration Statement; Certain Defined Terms*. The Company has filed with the Commission a registration statement on Form S-1 (No. 333-208850) covering the registration of the Offered Securities under the Act, including a related preliminary prospectus or prospectuses. At any particular time, this initial registration statement, in the form then on file with the Commission, including all information contained in the registration statement (if any) pursuant to Rule 462(b) under the Act ("**Rule 462(b)**") and then deemed to be a part of the initial registration statement, and all 430A Information and all 430C Information, that in any case has not then been superseded or modified, shall be referred to as the "**Initial Registration Statement**". The Company may also have filed, or may file with the Commission, a Rule 462(b) registration statement covering the registration of the Offered Securities. At any particular time, this Rule 462(b) registration statement, in the form then on file with the Commission, including the contents of the Initial Registration Statement incorporated by reference therein and including all 430A Information and all 430C Information, that in any case has not then been superseded or modified, shall be referred to as the "**Additional Registration Statement**".

As of the time of execution and delivery of this Agreement, the Initial Registration Statement has been declared effective under the Act and is not proposed to be amended. Any Additional Registration Statement has or will become effective upon filing with the Commission pursuant to

---

Rule 462(b) and is not proposed to be amended. The Offered Securities all have been or will be duly registered under the Act pursuant to the Initial Registration Statement and, if applicable, the Additional Registration Statement.

For purposes of this Agreement:

"**430A Information**", with respect to any registration statement, means information included in a prospectus and retroactively deemed to be a part of such registration statement pursuant to Rule 430A(b).

"**430C Information**", with respect to any registration statement, means information included in a prospectus then deemed to be a part of such registration statement pursuant to Rule 430C.

"**Act**" means the Securities Act of 1933, as amended.

"**Applicable Time**" means :00 [a/p]m (Eastern time) on the date of this Agreement.

"**Closing Date**" has the meaning defined in Section 3 hereof.

"**Commission**" means the Securities and Exchange Commission.

"**Effective Time**" with respect to the Initial Registration Statement or, if filed prior to the execution and delivery of this Agreement, the Additional Registration Statement means the date and time as of which such Registration Statement was declared effective by the Commission or has become effective upon filing pursuant to Rule 462(c). If an Additional Registration Statement has not been filed prior to the execution and delivery of this Agreement but the Company has advised the Representatives that it proposes to file one, "**Effective Time**" with respect to such Additional Registration Statement means the date and time as of which such Registration Statement is filed and becomes effective pursuant to Rule 462(b).

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

"**Final Prospectus**" means the Statutory Prospectus that discloses the public offering price, other 430A Information and other final terms of the Offered Securities and otherwise satisfies Section 10(a) of the Act.

"**General Use Issuer Free Writing Prospectus**" means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors, as evidenced by its being so specified in Schedule B-1 to this Agreement.

"**Issuer Free Writing Prospectus**" means any "issuer free writing prospectus," as defined in Rule 433, relating to the Offered Securities in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g).

"**Limited Use Issuer Free Writing Prospectus**" means any Issuer Free Writing Prospectus that is not a General Use Issuer Free Writing Prospectus.

The Initial Registration Statement and the Additional Registration Statement, if any, are referred to collectively as the "**Registration Statements**" and individually as a "**Registration Statement**". A "**Registration Statement**" with reference to a particular time means the Initial Registration Statement and any Additional Registration Statement as of such time. A "**Registration Statement**" without reference to a time means such Registration Statement as of its Effective Time. For purposes of the foregoing definitions, 430A Information with respect to a Registration Statement shall be considered to be included in such Registration Statement as of the time specified in Rule 430A.

"**Rules and Regulations**" means the rules and regulations of the Commission.



"**Securities Laws**" means, collectively, the Sarbanes-Oxley Act of 2002 ("**Sarbanes-Oxley**"), the Act, the Exchange Act, the Rules and Regulations, the auditing principles, rules, standards and practices applicable to auditors of "issuers" (as defined in Sarbanes-Oxley) promulgated or approved by the Public Company Accounting Oversight Board and the rules of The NASDAQ Stock Market LLC ("**Exchange Rules**").

"**Statutory Prospectus**" with reference to a particular time means the prospectus included in a Registration Statement immediately prior to that time, including any 430A Information or 430C Information with respect to such Registration Statement. For purposes of the foregoing definition, 430A Information shall be considered to be included in the Statutory Prospectus as of the actual time that form of prospectus is filed with the Commission pursuant to Rule 424(b) or Rule 462(c) and not retroactively.

"**Testing-the-Waters Communication**" means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Act.

"**Written Testing-the-Waters Communication**" means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Act.

Unless otherwise specified, a reference to a "rule" is to the indicated rule under the Act.

(b) *Compliance with Securities Act Requirements*. (i) (A) At their respective Effective Times, (ii) on the date of this Agreement and (A) on each Closing Date, each of the Initial Registration Statement and the Additional Registration Statement (if any) conformed and will conform in all material respects to the requirements of the Act and the Rules and Regulations and did not and will not include any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading, and (ii) on its date, at the time of filing of the Final Prospectus pursuant to Rule 424(b) or (if no such filing is required) at the Effective Time of the Additional Registration Statement in which the Final Prospectus is included, and on each Closing Date, the Final Prospectus will conform in all material respects to the requirements of the Act and the Rules and Regulations and will not include any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements in or omissions from any such document based upon written information furnished to the Company by any Underwriter through the Representatives specifically for use therein, it being understood and agreed that the only such information is that described as such in Section 8(b) hereof.

(c) *Ineligible Issuer Status*. (i) At the time of the initial filing of the Initial Registration Statement and (ii) at the date of this Agreement, the Company was not and is not an "ineligible issuer," as defined in Rule 405, including (x) the Company in the preceding three years not having been convicted of a felony or misdemeanor or having been made the subject of a judicial or administrative decree or order as described in Rule 405 and (y) the Company in the preceding three years not having been the subject of a bankruptcy petition or insolvency or similar proceeding, not having had a registration statement be the subject of a proceeding under Section 8 of the Act and not being the subject of a proceeding under Section 8A of the Act in connection with the offering of the Offered Securities, all as described in Rule 405.

(d) *Emerging Growth Company Status.* From the time of initial confidential submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly or through any Person authorized to act on its behalf in any Testing-the-Waters Communication) through the date hereof, the Company has been and is an "emerging growth company," as defined in Section 2(a) of the Act (an "**Emerging Growth Company**").

(e) *Testing-the-Waters*. The Company (a) has not alone engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications with the consent of the



Representatives with entities that are qualified institutional buyers within the meaning of Rule 144A under the Securities Act or institutions that are accredited investors within the meaning of Rule 501 under the Securities Act and (b) has not authorized anyone other than the Representatives to engage in Testing-the-Waters Communications. The Company reconfirms that the Representatives have been authorized to act on its behalf in

undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications other than those listed on Schedule B-2 hereto.

(f) *General Disclosure Package*. As of the Applicable Time, none of (i) the General Use Issuer Free Writing Prospectus(es) issued at or prior to the Applicable Time, if any, the preliminary prospectus, dated , 2016 (which is the most recent Statutory Prospectus distributed to investors generally) and the other information, if any, stated in Schedule B-1 to this Agreement to be included in the General Disclosure Package, all considered together (collectively, the "**General Disclosure Package**"), (ii) any individual Limited Use Issuer Free Writing Prospectus, when considered together with the General Disclosure Package or (iii) any individual Written Testing-the-Waters Communication, when considered together with the General Disclosure Package, included any untrue statement of a material fact or omitted to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements in or omissions from any Statutory Prospectus, any Issuer Free Writing Prospectus or any Written Testing-the-Waters Communications, made in reliance upon and in conformity with written information furnished to the Company by any Underwriter through the Representatives specifically for use therein, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 8(b) hereof.

(g) *Issuer Free Writing Prospectuses*. Each Issuer Free Writing Prospectus, if any, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Offered Securities or until any earlier date that the Company notified or notifies the Representatives as described in the next sentence, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information then contained in the Registration Statement. If at any time following issuance of an Issuer Free Writing Prospectus and prior to the Closing Date there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information then contained in the Registration Statement or as a result of which such Issuer Free Writing Prospectus, if republished immediately following such event or development, would include an untrue statement of a material fact or omitted or would 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, (i) the Company has promptly notified or will promptly notify the Representatives and (ii) the Company has promptly amended or will promptly amend or supplement such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission. The preceding sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus made in reliance upon and in conformity with written information furnished to the Company by any Underwriter through the Representatives specifically for use therein, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 8(b) hereof.

(h) *Good Standing of the Company*. The Company has been duly incorporated and is existing and in good standing under the laws of the State of Delaware, with power and authority (corporate and other) to own its properties and conduct its business as described in the General Disclosure Package and the Final Prospectus; and the Company is duly qualified to do business as a foreign corporation in good standing in all other jurisdictions in which its ownership or lease of property or the conduct of its business requires such qualification, except where the failure to be so qualified or in good standing in such other jurisdictions would not, individually or in the



aggregate, reasonably be expected to result in a material adverse effect on the condition (financial or otherwise), results of operations, business, properties or prospects of the Company ("**Material Adverse Effect**").

(i) *No Subsidiaries*. The Company does not have any and has never had any subsidiaries.

(j) *Offered Securities*. The Offered Securities and all other outstanding shares of capital stock of the Company have been duly authorized; the authorized equity capitalization of the Company is as set forth in the General Disclosure Package; all outstanding shares of capital stock of the Company are, and, when the Offered Securities have been delivered and paid for in accordance with this Agreement on each Closing Date, such Offered Securities will have been, validly issued, fully paid and nonassessable, will conform in all material respects to the information in the General Disclosure Package and to the description of such Offered Securities contained in the Final Prospectus; the stockholders of the Company have no preemptive rights with respect to the Offered Securities that have not been duly waived or satisfied; and none of the outstanding shares of capital stock of the Company have been issued in violation of any preemptive or similar rights of any security holder.

(k) *No Finder's Fee*. Except as disclosed in the General Disclosure Package and the Final Prospectus, there are no contracts, agreements or understandings between the Company and any person that would give rise to a valid claim against the Company or any Underwriter for a brokerage commission, finder's fee or other like payment in connection with this offering.

(l) *Registration Rights*. Except as disclosed in the General Disclosure Package and the Final Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to file a registration statement under the Act with respect to any securities of the Company owned or to be owned by such person or to require the Company to include such securities in the securities registered pursuant to the Registration Statement or in any securities being registered pursuant to any other registration statement filed by the Company under the Act (collectively, "**registration rights**"), and any person to whom the Company has granted registration rights has agreed not to exercise such rights until after the expiration of the Lock-Up Period referred to in Section 5 hereof.

(m) *Listing*. The Offered Securities have been approved for listing on the NASDAQ Global Market, subject to notice of issuance.

(n) *Absence of Further Requirements*. No consent, approval, authorization, or order of, or filing or registration with, any person (including any governmental agency or body or any court) is required for the consummation of the transactions contemplated by this Agreement in connection with the offering, issuance and sale of the Offered Securities by the Company, except such as have been obtained, or made and such as may be required under state securities laws or the Financial Industry Regulatory Authority ("**FINRA**").

(o) *Title to Property*. Except as disclosed in the General Disclosure Package and the Final Prospectus or as would not reasonably be expected to result in a Material Adverse Effect, the Company has good and marketable title to all personal property and assets owned by it, in each case free from liens, charges, encumbrances and defects, and the Company holds any leased real or personal property under valid and enforceable leases with no terms or provisions that would materially interfere with the use made or to be made thereof by it. The Company does not own any real property.

(p) *Absence of Defaults and Conflicts Resulting from Transaction.* The execution, delivery and performance of this Agreement, and the issuance and sale of the Offered Securities will not



result in a breach or violation of any of the terms and provisions of, or constitute a default or a Debt Repayment Triggering Event (as defined below) under, or result in the imposition of any lien, charge or encumbrance upon any property or assets of the Company pursuant to, (i) the charter or bylaws of the Company, (ii) any statute, rule, regulation or order of any governmental agency or body or any court, domestic or foreign, having jurisdiction over the Company or any of its properties, or (iii) any agreement or instrument to which the Company is a party or by which the Company is bound or to which any of the properties of the Company is subject, except in the case of each of clauses (ii) and (iii), where such breaches, violations, defaults, liens, charges or encumbrances would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect; a "**Debt Repayment Triggering Event**" means any event or condition that gives, or with the giving of notice or lapse of time would give, the holder of any note, debenture, or other evidence of indebtedness (or any person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company.

(q) *Absence of Existing Defaults and Conflicts*. The Company is not in violation of its charter or bylaws or in default (or with the giving of notice or lapse of time would be in default) under any existing obligation, agreement, covenant or condition contained in any indenture, loan agreement, mortgage, lease or other agreement or instrument to which any of them is a party or by which any of them is bound or to which any of the properties of any of them is subject, except such defaults that would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

(r) *Authorization of Agreement*. This Agreement has been duly authorized, executed and delivered by the Company.

(s) *Possession of Licenses and Permits*. Except in such cases that would not reasonably be expected to result in a Material Adverse Effect, the Company possesses, and is in compliance with the terms of, all adequate certificates, authorizations, franchises, licenses and permits ("**Licenses**") necessary or material to the conduct of the business now conducted or proposed in the General Disclosure Package and the Final Prospectus to be conducted by it, including, without limitation, from the U.S. Food and Drug Administration ("**FDA**") and the Company has not received any notice of proceedings relating to the revocation or modification of any Licenses that, if determined adversely to the Company, would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(t) *Absence of Labor Dispute*. No labor dispute with the employees of the Company exists or, to the knowledge of the Company, is imminent that would reasonably be expected to have a Material Adverse Effect.

(u) *Intellectual Property*. Except as would not reasonably be expected to have a Material Adverse Effect or as otherwise expressly disclosed in the General Disclosure Package and the Final Prospectus, the Company owns or has obtained valid and enforceable licenses for, or otherwise has the right to use, all patents, patent applications, inventions, copyrights, know how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademark registrations and applications for registration, service marks, trade names, domain names, and other similar intellectual property or proprietary rights, whether or not registered (including all goodwill associated with the foregoing, as applicable) (collectively, "**Intellectual Property Rights**") necessary and material to the conduct of the business now conducted by it. To the Company's knowledge the conduct of the business of the Company has not conflicted with, infringed, misappropriated or otherwise violated any Intellectual Property Rights of any third party. Except as expressly disclosed in the General Disclosure Package and the Final Prospectus: (i) there are no claims asserted in writing by third parties to ownership of any of the Intellectual Property Rights owned by the Company; (ii) to the



Company's knowledge, all issued patents contained within the Intellectual Property Rights owned or licensed by the Company are valid and enforceable, solely owned or licensed by the Company and, to the extent owned, are owned free and clear of all liens and encumbrances; (iii) to the Company's knowledge, without any duty to conduct a special search, there is no material infringement, misappropriation, breach, default or other violation by any third party of any of the Intellectual Property Rights owned by or licensed to the Company; (iv) there is no pending or, to the Company's knowledge, without any duty to conduct a special search, threatened action, suit, proceeding or claim by others challenging the Company's rights in or to the Intellectual Property Rights owned by or licensed to the Company; (v) there is no pending or, to the Company's knowledge, without any duty to conduct a special search, threatened action, suit, proceeding or claim by others challenging the validity, enforceability or scope of any such Intellectual Property Rights; (vi) there is no pending or, to the Company's knowledge, without any duty to conduct a special search, threatened action, suit, proceeding or claim by others that the Company infringes, misappropriates or otherwise violates any Intellectual Property Rights or other proprietary rights of others and the Company is unaware of any other fact which would form a reasonable basis for any such claim; and (vii) none of the Intellectual Property Rights used by the Company in its businesses has been obtained or is being used by the Company in violation of any contractual obligation binding on the Company, except in each case covered by clauses (i) — (vii) such as would not, if determined adversely to the Company, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(v) *Environmental Laws*. Except as disclosed in the General Disclosure Package and the Final Prospectus, the Company is not in violation of any statute, any rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, "**environmental laws**"), the Company does not own or operate any real property contaminated with any substance that is subject to any environmental laws, is not liable for any off-site disposal or contamination pursuant to any environmental laws, and is not subject to any claim relating to any environmental laws, which violation, contamination, liability or claim would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and the Company is not aware of any pending investigation which might lead to such a claim.

(w) *Accurate Disclosure*. The statements in the General Disclosure Package and the Final Prospectus under the headings "Material United States Federal Income Tax Consequences to Non-U.S. Holders", "Description of Capital Stock", "Business—Government regulation", "Business—Intellectual property", "Risk Factors—Risks Related to Intellectual Property" and "Risk Factors—Risks related to government regulation" and, insofar as such statements summarize legal matters, agreements, documents or proceedings discussed therein, are accurate and fair summaries of

such legal matters, agreements, documents or proceedings in all material respects and present the information required to be shown in all material respects.

(x) *Absence of Manipulation*. The Company has not taken, directly or indirectly, any action that is designed to or that has constituted or that would 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 Offered Securities; provided, that no representation is made in this subsection with respect to the actions of the Underwriters.

(y) *Statistical and Market-Related Data*. Any third-party statistical and market-related data included in a Registration Statement, a Statutory Prospectus, the General Disclosure Package or any Written Testing-the-Waters Communications is based on or derived from sources that the Company believes to be reliable and accurate.



(z) *Internal Controls and Compliance with the Sarbanes-Oxley Act*. Except as set forth in the General Disclosure Package and the Final Prospectus, the Company and the Company's Board of Directors (the "**Board**") are in compliance with the applicable provisions of Sarbanes-Oxley and all applicable Exchange Rules. The Company maintains a system of "internal controls over financial reporting" (as defined in Rule 13a-15(f) of the Exchange Act), including, but not limited to, disclosure controls and procedures and internal controls over accounting matters (collectively, "**Internal Controls**") that are sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with U.S. Generally Accepted Accounting Principles ("**GAAP**") 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 the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Internal Controls are, or upon consummation of the offering of the Offered Securities will be, overseen by the Audit Committee (the "**Audit Committee**") of the Board in accordance with Exchange Rules. Except as disclosed to the Underwriters, the Company has not publicly disclosed or reported to the Audit Committee or the Board, and within the next 135 days the Company does not reasonably expect to publicly disclose or report to the Audit Committee or the Board, a significant deficiency, material weakness, adverse change in Internal Controls or fraud involving management or other employees who have a significant role in Internal Controls (each, an "**Internal Control Event**"), or any violation of, or failure to comply with, the Securities Laws, which, if determined adversely, would have a Material Adverse Effect.

(aa) *Litigation*. Except as disclosed in the General Disclosure Package and the Final Prospectus, there are no pending actions, suits or proceedings (including, to the Company's knowledge, any inquiries or investigations by any court or governmental agency or body, domestic or foreign) against or affecting the Company or any of its properties that, if determined adversely to the Company, would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, or would materially and adversely affect the ability of the Company to perform its obligations under this Agreement, or which are otherwise material in the context of the sale of the Offered Securities; and no such actions, suits or proceedings (including, to the Company's knowledge, any inquiries or investigations by any court or governmental agency or body, domestic or foreign) are threatened or, to the Company's knowledge, contemplated.

(bb) *Financial Statements*. The financial statements included in each Registration Statement, the General Disclosure Package and the Final Prospectus present fairly in all material respects the financial position of the Company as of the dates shown and its results of operations and cash flows for the periods shown, and such financial statements have been prepared in conformity with GAAP, applied on a consistent basis.

(cc) *Auditor Independence.* PricewaterhouseCoopers LLP, who has certified certain financial statements of the Company, is an independent registered public accounting firm with respect to the Company within the applicable rules and regulations adopted by the Commission and the Public Company Accounting Oversight Board (United States) and as required by the Securities Act.

(dd) *No Material Adverse Change in Business*. Except as disclosed in the General Disclosure Package and the Final Prospectus, since the end of the period covered by the latest audited financial statements included in the General Disclosure Package and the Final Prospectus (i) there has been no change, nor any development or event involving a prospective change, that would reasonably be expected to result in a Material Adverse Effect , (ii) except as disclosed in or contemplated by the General Disclosure Package and the Final Prospectus, there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock and (iii) except as disclosed in or contemplated by the General Disclosure Package



and the Final Prospectus, there has been no material adverse change in the capital stock, short-term indebtedness, long-term indebtedness, net current assets or net assets of the Company.

(ee) *Investment Company Act*. The Company is not and, after giving effect to the offering and sale of the Offered Securities and the application of the proceeds thereof as described in the General Disclosure Package and the Final Prospectus, will not be an "investment company" as defined in the Investment Company Act of 1940, as amended (the "**Investment Company Act**").

(ff) *Ratings*. The Company does not have any debt securities or preferred stock that are rated by any "nationally recognized statistical rating agency" (as defined in Section 3(a)(62) of the Exchange Act).

(gg) *Compliance*. Neither the Company nor any of its officers or directors, nor, to the Company's knowledge, any affiliate, employee, agent or representative of the Company or of any of its affiliates, has violated any of the following laws: (a) anti-bribery laws, including but not limited to, any applicable law, rule, or regulation of any locality, including but not limited to any law, rule, or regulation promulgated to implement the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, signed December 17, 1997, including the U.S. Foreign Corrupt Practices Act of 1977, as amended or any other law, rule or regulation of similar purpose and scope, (b) anti-money laundering laws, including but not limited to, applicable federal, state, international, foreign or other laws, regulations or government guidance regarding anti-money laundering, including, without limitation, Title 18 U.S. Code section 1956 and 1957, the Patriot Act, the Bank Secrecy Act, and international anti-money laundering principals or procedures by an intergovernmental group or organization, such as the Financial Action Task Force on Money

Laundering, of which the United States is a member and with which designation the United States representative to the group or organization continues to concur, all as amended, and any Executive order, directive, or regulation pursuant to the authority of any of the foregoing, or any orders or licenses issued thereunder or (c) laws and regulations imposing U.S. economic sanctions measures, including, but not limited to, the International Emergency Economic Powers Act, the Trading with the Enemy Act, the United Nations Participation Act, and the Syria Accountability and Lebanese Sovereignty Act, all as amended, and any Executive Order, directive, or regulation pursuant to the authority of any of the foregoing, including the regulations of the United States Treasury Department set forth under 31 CFR, Subtitle B, Chapter V, as amended, or any orders or licenses issued thereunder. The Company's participation in the offering will not violate any of the foregoing laws and the Company has instituted and maintained, and will continue to maintain, policies and procedures reasonably designed to promote and achieve compliance with such laws.

(hh) *FDA*. The Company has operated and currently is in compliance with all applicable rules, regulations and policies of the FDA, except where the failure to so operate or be in compliance would not reasonably be expected to have a Material Adverse Effect.

(ii) *Clinical Trials*. Any clinical trials and human studies conducted by the Company and, to the knowledge of the Company, any clinical trials and human studies conducted on behalf of the Company or in which the Company has participated, with respect to the Company's product candidates, were, and if still pending are, being conducted in accordance with all applicable rules, regulations and policies of the FDA and comparable regulatory agencies outside of the United States to which the Company is subject and current Good Clinical Practices and Good Laboratory Practices, except where the failure to be so conducted would not reasonably be expected to have a Material Adverse Effect.

(jj) *Taxes*. The Company has filed all federal, state, local and non-U.S. tax returns that are required to be filed through the date of this Agreement or have obtained extensions thereof (except in any case in which the failure to file would not, individually or in the aggregate, reasonably be



expected to have a Material Adverse Effect) and have paid all taxes required to be paid thereon, including any assessments, fines or penalties related thereto (except for any such taxes, assessments, fines or penalties being contested in good faith for which reserves required by GAAP have been created in the financial statements of the Company, or, except in any case in which the failure to file or pay would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect); and no tax deficiency has been determined adversely to the Company which has had (nor does the Company have any notice or knowledge of any tax deficiency which could reasonably be expected to be determined adversely to the Company and which would reasonably be expected to have) a Material Adverse Effect.

(kk) *Insurance*. The Company is insured by insurers with appropriately rated claims paying abilities against such losses and risks and in such amounts as are prudent and customary for similarly sized companies in the businesses in which it is engaged; all policies of insurance and fidelity or surety bonds insuring the Company or its business, assets, employees, officers and directors are in full force and effect, except as would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect; the Company is in compliance with the terms of such policies and instruments in all material respects; and there are no claims by the Company under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause; the Company has not been refused any insurance coverage sought or applied for; the Company does not have any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not reasonably be expected to have a Material Adverse Effect, except as set forth in or contemplated in the General Disclosure Package and the Final Prospectus; and the Company will obtain directors' and officers' insurance in such amounts as is customary for an initial public offering.

3. *Purchase, Sale and Delivery of Offered Securities*. On the basis of the representations, warranties and agreements and subject to the terms and conditions set forth herein, the Company agrees to sell to the several Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at a purchase price of $ per share, the respective number of shares of Firm Securities set forth opposite the names of the Underwriters in Schedule A hereto.

The Company will deliver the Firm Securities to or as instructed by the Representatives for the accounts of the several Underwriters in a form reasonably acceptable to the Representatives against payment of the purchase price by the Underwriters in Federal (same day) funds by wire transfer to an account at a bank acceptable to Credit Suisse Securities (USA) LLC ("**Credit Suisse**") drawn to the order of the Company at the office of Davis Polk & Wardwell LLP in Menlo Park, at A.M., New York time, on , 2016, or at such other time not later than seven full business days thereafter as the Representatives and the Company determine, such time being herein referred to as the "**First Closing Date**". For purposes of Rule 15c6-1 under the Exchange Act, the First Closing Date (if later than the otherwise applicable settlement date) shall be the settlement date for payment of funds and delivery of securities for all the Offered Securities sold pursuant to the offering. The Firm Securities so to be delivered or evidence of their issuance will be made available for checking at the office of Davis Polk & Wardwell LLP at least 24 hours prior to the First Closing Date.

In addition, upon written notice from the Representatives given to the Company from time to time not more than 30 days subsequent to the date of the Final Prospectus, the Underwriters may purchase all or less than all of the Optional Securities at the purchase price per Security to be paid for the Firm Securities. The Company agrees to sell to the Underwriters the number of shares of Optional Securities specified in such notice and the Underwriters agree, severally and not jointly, to purchase such Optional Securities. Such Optional Securities shall be purchased for the account of each Underwriter in the same proportion as the number of shares of Firm Securities set forth opposite such Underwriter's name bears to the total number of shares of Firm Securities (subject to adjustment by the Representatives to eliminate fractions)



and may be purchased by the Underwriters only for the purpose of covering over-allotments made in connection with the sale of the Firm Securities. No Optional Securities shall be sold or delivered unless the Firm Securities previously have been, or simultaneously are, sold and delivered. The right to purchase the Optional Securities or any portion thereof may be exercised from time to time during the 30-day period following the date of the Final Prospectus and to the extent not previously exercised may be surrendered and terminated at any time upon notice by the Representatives to the Company.

Each time for the delivery of and payment for the Optional Securities, being herein referred to as an "**Optional Closing Date**", which may be the First Closing Date (the First Closing Date and each Optional Closing Date, if any, being sometimes referred to as a "**Closing Date**"), shall be determined by

the Representatives but, except as otherwise mutually agreed between the Company and the Representatives, shall be not less than two full business days nor later than five full business days after written notice of election to purchase Optional Securities is given, unless the Optional Closing Date is the First Closing Date, in which case the Optional Closing Date may occur no sooner than one business day after written notice of election is given. The Company will deliver the Optional Securities being purchased on each Optional Closing Date to or as instructed by the Representatives for the accounts of the several Underwriters in a form reasonably acceptable to the Representatives against payment of the purchase price therefor in Federal (same day) funds by wire transfer to an account at a bank acceptable to the Representatives drawn to the order of the Company, at the office of Davis Polk & Wardwell LLP in Menlo Park. The Optional Securities being purchased on each Optional Closing Date or evidence of their issuance will be made available for checking at the office of Davis Polk & Wardwell LLP at a reasonable time in advance of such Optional Closing Date.

4. *Offering by Underwriters*. It is understood that the several Underwriters propose to offer the Offered Securities for sale to the public as set forth in the Final Prospectus.

5. *Certain Agreements of the Company*. The Company agrees with the several Underwriters that:

(a) *Additional Filings*. Unless filed pursuant to Rule 462(c) as part of the Additional Registration Statement in accordance with the next sentence, the Company will file the Final Prospectus, in a form approved by the Representatives, with the Commission pursuant to and in accordance with subparagraph (1) (or, if applicable and if consented to by the Representatives, which consent shall not be unreasonably delayed or withheld, subparagraph (4)) of Rule 424(b) not later than the earlier of (A) the second business day following the execution and delivery of this Agreement or (B) the fifteenth business day after the Effective Time of the Initial Registration Statement. The Company will advise the Representatives promptly of any such filing pursuant to Rule 424(b) and provide satisfactory evidence to the Representatives of such timely filing. If an Additional Registration Statement is necessary to register a portion of the Offered Securities under the Act but the Effective Time thereof has not occurred as of the execution and delivery of this Agreement, the Company will file the Additional Registration Statement or, if filed, will file a post-effective amendment thereto with the Commission pursuant to and in accordance with Rule 462(b) on or prior to 10:00 P.M., New York time, on the date of this Agreement or, if earlier, on or prior to the time the Final Prospectus is finalized and distributed to any Underwriter, or will make such filing at such later date as shall have been consented to by the Representatives.

(b) *Filing of Amendments; Response to Commission Requests*. The Company will promptly advise the Representatives of any proposal to amend or supplement at any time the Initial Registration Statement, any Additional Registration Statement or any Statutory Prospectus and will not effect such amendment or supplementation without the Representatives' consent, which consent shall not be unreasonably delayed or withheld; and the Company will also advise the Representatives promptly of (i) the effectiveness of any Additional Registration Statement (if its Effective Time is subsequent to the execution and delivery of this Agreement), (ii) any amendment or supplementation of a Registration Statement or any Statutory Prospectus, (iii) any



request by the Commission or its staff for any amendment to any Registration Statement, for any supplement to any Statutory Prospectus or for any additional information, (iv) the institution by the Commission of any stop order proceedings in respect of a Registration Statement or the threatening of any proceeding for that purpose, and (v) the receipt by the Company of any notification with respect to the suspension of the qualification of the Offered Securities in any jurisdiction or the institution or threatening of any proceedings for such purpose. The Company will use its reasonable best efforts to prevent the issuance of any such stop order or the suspension of any such qualification and, if issued, to obtain as soon as possible the withdrawal thereof.

(c) *Continued Compliance with Securities Laws*. If, at any time when a prospectus relating to the Offered Securities is (or but for the exemption in Rule 172 would be) required to be delivered under the Act by any Underwriter or dealer, any event occurs as a result of which the Final Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, or if it is necessary at any time to amend the Registration Statement or supplement the Final Prospectus to comply with the Act, the Company will promptly notify the Representatives of such event and will promptly prepare and file with the Commission and furnish, at its own expense, to the Underwriters and the dealers and any other dealers upon request of the Representatives, an amendment or supplement which will correct such statement or omission or an amendment which will effect such compliance. Neither the Representatives' consent to, nor the Underwriters' delivery of, any such amendment or supplement shall constitute a waiver of any of the conditions set forth in Section 7 hereof.

(d) *Emerging Growth Company Status*. The Company will promptly notify the Representatives if the Company ceases to be an Emerging Growth Company at any time prior to the later of (a) completion of the distribution of the Securities within the meaning of the Securities Act and (b) completion of the 180-day restricted period referred to in Section 5(m) hereof.

(e) *Rule 158*. As soon as practicable, but not later than the Availability Date (as defined below), the Company will make generally available to its securityholders an earnings statement covering a period of at least 12 months beginning after the Effective Time of the Initial Registration Statement (or, if later, the Effective Time of the Additional Registration Statement) which will satisfy the provisions of Section 11(a) of the Act and Rule 158 under the Act. For the purpose of the preceding sentence, "**Availability Date**" means the day after the end of the fourth fiscal quarter following the fiscal quarter that includes such Effective Time on which the Company is required to file its Form 10-Q for such fiscal quarter except that, if such fourth fiscal quarter is the last quarter of the Company's fiscal year, "**Availability Date**" means the day after the end of such fourth fiscal quarter on which the Company is required to file its Form 10-K.

(f) *Furnishing of Prospectuses*. The Company will furnish to the Representatives copies of each Registration Statement, each related Statutory Prospectus, and, so long as a prospectus relating to the Offered Securities is (or but for the exemption in Rule 172 would be) required to be delivered under the Act, the Final Prospectus and all amendments and supplements to such documents, in each case in such quantities as the Representatives reasonably request. The Final Prospectus shall be so furnished on or prior to 3:00 P.M., New York time, on the second business day following the execution and delivery of this Agreement, unless otherwise agreed by the Company and the Representatives. All other documents shall be so furnished as soon as available. The Company will pay the expenses of printing and distributing to the Underwriters all such documents.

(g) *Blue Sky Qualifications*. The Company will arrange for the qualification of the Offered Securities for sale under (or obtain exemption from the application of) the laws of such jurisdictions as the Representatives reasonably designate and will continue such qualifications and exemptions in effect so long as required for the distribution, provided that the Company will not

be required to qualify as a foreign corporation in any jurisdiction in which it is not so qualified or file a general consent to service of process in any such jurisdiction or take any action that would subject it to taxation in any such jurisdiction where it is not then so subject.

(h) *Testing-the-Waters*. If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

(i) *Reporting Requirements*. During the period expiring on the date that is three years hereafter, the Company will furnish to the Representatives and, upon request, to each of the other Underwriters, as soon as practicable after the end of each fiscal year, a copy of its annual report to stockholders for such year; and the Company will furnish to the Representatives (i) as soon as available, a copy of each report and any definitive proxy statement of the Company filed with the Commission under the Exchange Act or mailed to stockholders, and (ii) from time to time, such other non-confidential information concerning the Company as the Representatives may reasonably request. However, so long as the Company is subject to the reporting requirements of either Section 13 or Section 15(d) of the Exchange Act and is timely filing reports with the Commission on its Electronic Data Gathering, Analysis and Retrieval system (or any successor system), it is not required to furnish such reports or statements to the Underwriters.

(j) *Payment of Expenses*. The Company will pay all expenses incident to the performance of its obligations under this Agreement, including but not limited to (i) any filing fees and other expenses (including reasonably incurred and documented fees and disbursements of counsel to the Underwriters) incurred in connection with qualification of the Offered Securities for sale under the laws of such jurisdictions as the Representatives designate, (ii) the preparation and printing of memoranda relating thereto, costs and expenses related to the review by FINRA of the Offered Securities (including filing fees and the reasonably incurred and documented fees and expenses of counsel for the Underwriters relating to such review up to $40,000), (iii) costs and expenses relating to investor presentations or any "road show" in connection with the offering and sale of the Offered Securities including, without limitation, any travel expenses of the Company's officers and employees (including one-half of the cost of any aircraft chartered in connection with any road show) and (iv) any other expenses of the Company, fees and expenses incident to listing the Offered Securities on the NASDAQ Global Market, fees and expenses in connection with the registration of the Offered Securities under the Exchange Act, and expenses incurred in distributing preliminary prospectuses and the Final Prospectus (including any amendments and supplements thereto) to the Underwriters and for expenses incurred for preparing, printing and distributing any Issuer Free Writing Prospectuses to investors or prospective investors.

(k) *Use of Proceeds*. The Company will use the net proceeds received in connection with the offering of the Offered Securities in the manner described in the "Use of Proceeds" section of the General Disclosure Package and, except as disclosed in the General Disclosure Package and the Final Prospectus, the Company does not intend to use any of the proceeds from the sale of the Offered Securities hereunder to repay any outstanding debt owed to any Underwriter or affiliate of any Underwriter.

(l) *Absence of Manipulation*. The Company will not take, directly or indirectly, any action designed to or that would constitute or that might reasonably be expected to cause or result in, stabilization or manipulation of the price of any securities of the Company to facilitate the sale or



resale of the Offered Securities; provided, that no agreement is made in this subsection with respect to the actions of the Underwriters.

(m) *Restriction on Sale of Securities.* For the period specified below (the "**Lock-Up Period**"), the Company will not, directly or indirectly, take any of the following actions with respect to its Securities or any securities convertible into or exchangeable or exercisable for any of its Securities ("**Lock-Up Securities**"): (i) offer, sell, issue, contract to sell, pledge or otherwise dispose of Lock-Up Securities, (ii) offer, sell, issue, contract to sell, contract to purchase or grant any option, right or warrant to purchase Lock-Up Securities, (iii) enter into any swap, hedge or any other agreement that transfers, in whole or in part, the economic consequences of ownership of Lock-Up Securities, (iv) establish or increase a put equivalent position or liquidate or decrease a call equivalent position in Lock-Up Securities within the meaning of Section 16 of the Exchange Act or (v) file with the Commission a registration statement under the Act relating to Lock-Up Securities (other than registration statements on Form S-8 relating to Lock-Up Securities granted or to be granted pursuant to the terms of a plan disclosed in the General Disclosure Package), or publicly disclose the intention to take any such action, without the prior written consent of the Representatives, except, with respect to each of clauses (i) through (v), for (A) grants of employee stock options or other equity-based awards pursuant to the terms of a plan disclosed in the General Disclosure Package, (B) issuances of Lock-Up Securities pursuant to the exercise of such options or other equity-based awards, (C) issuances of Lock-Up Securities pursuant to the conversion or exchange of convertible or exchangeable securities (including cashless or "net" exercises) or the exercise of options or vesting of restricted stock, in each case, outstanding on the date hereof, (D) the sale or issuance of Lock-Up Securities in connection with a debt or credit financing facility or equipment leasing arrangement, (E) the sale or issuance of or entry into an agreement to sell or issue Lock-Up Securities in connection with any (1) mergers, (2) acquisition of securities, businesses, property or other assets, (3) joint ventures or (4) collaborations, licensing or strategic alliances; provided, that the aggregate number of shares of Securities (on as-converted or as-exercised basis, as the case may be) that the Company may sell or issue or agree to sell or issue pursuant to clauses (D) or (E) in this Section 5(m), in each case, shall not exceed 5% of the total number of shares of the Company's Securities issued and outstanding immediately following the completion of the transaction contemplated by this Agreement, or (F) the issuance of the Offered Securities; provided, that in the case of clauses (B), (C), (D) and (E), the recipients of such Lock-Up Securities agree to (x) be bound by a lockup letter in the form executed by directors, officers and stockholders pursuant to Section 7(h) hereof and (y) enter stop transfer instructions for the Company's transfer agent and registrar on such securities, which the Company agrees it will not waive or amend without the prior written consent of the Representatives. The Lock-Up Period will commence on the date hereof and continue for 180 days after the date hereof or such earlier date that the Representatives consent to in writing.

(n) *Agreement to Announce Lock-up Waiver*. If the Representatives, in their sole discretion, agree to release or waive the restrictions set forth in a lock-up letter described in Section 7(h) hereof for an officer or director of the Company and provide 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 B hereto through a major news service at least two business days before the effective date of the release or waiver

6. *Issuer Free Writing Prospectuses*. The Company represents and agrees that, unless it obtains the prior consent of the Representatives, and each Underwriter represents and agrees that, unless it obtains the prior consent of the Company and the Representatives, it has not made and will not make any offer relating to the Offered Securities that would constitute an Issuer Free Writing Prospectus, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405, required to be filed with the Commission. Any such free writing prospectus consented to by the Company and the Representatives is hereinafter referred to as a "**Permitted Free Writing Prospectus**." The Company represents that it has



treated and agrees that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied and will comply with the requirements of Rules 164 and 433 applicable to any Permitted Free Writing Prospectus, including timely Commission filing where required, legending and record keeping. The Company represents that it has satisfied and agrees that it will satisfy the conditions in Rule 433 to avoid a requirement to file with the Commission any electronic road show.

7. *Conditions of the Obligations of the Underwriters*. The obligations of the several Underwriters to purchase and pay for the Firm Securities on the First Closing Date and the Optional Securities to be purchased on each Optional Closing Date will be subject to the accuracy of the representations and warranties of the Company herein (as though made on such Closing Date), to the accuracy of the statements of Company officers made pursuant to the provisions hereof, to the performance by the Company of its obligations hereunder and to the following additional conditions precedent:

(a) *Accountants' Comfort Letter*. The Representatives shall have received letters, dated, respectively, the date hereof and each Closing Date, of PricewaterhouseCoopers LLP confirming that they are a registered public accounting firm and independent public accountants within the meaning of the Securities Laws and in form and substance satisfactory to the Representatives (except that, in any letter dated a Closing Date, the specified date referred to in such letter hereto shall be a date no more than three days prior to such Closing Date).

(b) *Effectiveness of Registration Statement*. If the Effective Time of the Additional Registration Statement (if any) is not prior to the execution and delivery of this Agreement, such Effective Time shall have occurred not later than 10:00 P.M., New York time, on the date of this Agreement or, if earlier, the time the Final Prospectus is finalized and distributed to any Underwriter, or shall have occurred at such later time as shall have been consented to by the Representatives. The Final Prospectus shall have been filed with the Commission in accordance with the Rules and Regulations and Section 5(a) hereof. Prior to such Closing Date, no stop order suspending the effectiveness of a Registration Statement shall have been issued and no proceedings for that purpose shall have been instituted or, to the knowledge of the Company or the Representatives, shall be contemplated by the Commission.

(c) *No Material Adverse Change*. Subsequent to the execution and delivery of this Agreement, there shall not have occurred (i) any change, or any development or event involving a prospective change, in the condition (financial or otherwise), results of operations, business, properties or prospects of the Company which, in the judgment of the Representatives, is material and adverse and makes it impractical or inadvisable to market the Offered Securities; (ii) any change in either U.S. or international financial, political or economic conditions or currency exchange rates or exchange controls the effect of which is such as to make it, in the judgment of the Representatives, impractical to market or to enforce contracts for the sale of the Offered Securities, whether in the primary market or in respect of dealings in the secondary market; (iii) any suspension or material limitation of trading in securities generally on the New York Stock Exchange or the NASDAQ Global Market, or any setting of minimum or maximum prices for trading on such exchange; (iv) or any suspension of trading of any securities of the Company on any exchange or in the over-the-counter market; (v) any banking moratorium declared by any U.S. federal or New York authorities; (vi) any major disruption of settlements of securities, payment, or clearance services in the United States or any other country where such securities are listed or (vii) any attack on, outbreak or escalation of hostilities or act of terrorism involving the United States, any declaration of war by Congress or any other national or international calamity or emergency if, in the judgment of the Representatives, the effect of any such attack, outbreak, escalation, act, declaration, calamity or emergency is such as to make it impractical or inadvisable to market the Offered Securities or to enforce contracts for the sale of the Offered Securities.



(d) *Opinion of Counsel for Company*. The Representatives shall have received an opinion and a negative assurance letter, and an opinion as to certain tax matters, each dated such Closing Date, of Latham & Watkins LLP, counsel for the Company, in form and substance agreed upon between the parties (with appropriate modification to the date and number of Securities for any opinion or negative assurance letter delivered on any Optional Closing Date), together with signed or reproduced copies of such letters for each of the other Underwriters.

(e) *Opinion of Intellectual Property Counsel for Company*. The Representatives shall have received an opinion and a negative assurance letter, each dated such Closing Date, of Mintz Levin Cohn Ferris Glovsky and Popeo PC, intellectual property counsel for the Company, in form and substance agreed upon between the parties.

(f) *Opinion of Counsel for Underwriters.* The Representatives shall have received from Davis Polk & Wardwell LLP, counsel for the Underwriters, such opinion or opinions and a negative assurance letter, dated such Closing Date, with respect to such matters as the Representatives may require, and the Company shall have furnished to such counsel such documents as they request for the purpose of enabling them to pass upon such matters.

(g) *Officers' Certificate*. The Representatives shall have received a certificate, dated such Closing Date, of an executive officer of the Company and a principal financial or accounting officer of the Company in their capacities as officers of the Company in which such officers shall state that: the representations and warranties of the Company in this Agreement are true and correct; the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to such Closing Date; no stop order suspending the effectiveness of any Registration Statement has been issued and no proceedings for that purpose have been instituted or, to the best of their knowledge, are contemplated by the Commission; the Additional Registration Statement (if any) satisfying the requirements of subparagraphs (1) and (3) of

Rule 462(b) was timely filed pursuant to Rule 462(b), including payment of the applicable filing fee in accordance with Rule 111(a) or (b) of Regulation S-T of the Commission; and, subsequent to the date of the most recent financial statements in the General Disclosure Package and the Final Prospectus, there has been no material adverse change, nor any development or event involving a prospective material adverse change, in the condition (financial or otherwise), results of operations, business, properties or prospects of the Company except as set forth in the General Disclosure Package and the Final Prospectus or as described in such certificate.

(h) *Lock-up Agreements*. On or prior to the date hereof, the Representatives shall have received lock-up agreements in substantially the form set forth on Exhibit A hereto from each of the executive officers, directors and the holders of the outstanding equity securities of the Company.

The Company will furnish the Representatives with such conformed copies of such opinions, certificates, letters and documents as the Representatives reasonably request. Credit Suisse may in its sole discretion waive on behalf of the Underwriters compliance with any conditions to the obligations of the Underwriters hereunder, whether in respect of an Optional Closing Date or otherwise.

8. *Indemnification and Contribution*.

(a) *Indemnification of Underwriters*. The Company will indemnify and hold harmless each Underwriter, its partners, members, directors, officers, employees, agents, affiliates and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Act or



Section 20 of the Exchange Act (each, an "**Indemnified Party**"), against any and all losses, claims, damages or liabilities, joint or several, to which such Indemnified Party may become subject, under the Act, the Exchange Act, other Federal or state statutory law or regulation or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained in any part of any Registration Statement at any time, any Statutory Prospectus as of any time, the Final Prospectus, any Issuer Free Writing Prospectus or any Written Testing-the-Waters Communication, or arise out of or are based upon the omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse each Indemnified Party for any legal or other expenses reasonably incurred by such Indemnified Party in connection with investigating or defending against any loss, claim, damage, liability, action, litigation, investigation or proceeding whatsoever (whether or not such Indemnified Party is a party thereto), whether threatened or commenced, and in connection with the enforcement of this provision with respect to any of the above as such expenses are incurred; provided, however, that the Company will not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement in or omission or alleged omission from any of such documents made in reliance upon and in conformity with written information furnished to the Company by any Underwriter through the Representatives specifically for use therein, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in subsection (b) below.

(b) *Indemnification of Company*. Each Underwriter will severally and not jointly indemnify and hold harmless the Company, each of its directors and each of its officers who signs a Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Act or Section 20 of the Exchange Act (each, an "**Underwriter Indemnified Party**"), against any losses, claims, damages or liabilities to which such Underwriter Indemnified Party may become subject, under the Act, the Exchange Act, other Federal or state statutory law or regulation or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained in any part of any Registration Statement at any time, any Statutory Prospectus as of any time, the Final Prospectus, any Issuer Free Writing Prospectus or any Written Testing-the-Waters Communication, or arise out of or are based upon the omission or the alleged omission of a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in reliance upon and in conformity with written information furnished to the Company by such Underwriter through the Representatives specifically for use therein, and will reimburse any legal or other expenses reasonably incurred by such Underwriter Indemnified Party in connection with investigating or defending against any such loss, claim, damage, liability, action, litigation, investigation or proceeding whatsoever (whether or not such Underwriter Indemnified Party is a party thereto), whether threatened or commenced, based upon any such untrue statement or omission, or any such alleged untrue statement or omission as such expenses are incurred, it being understood and agreed that the only such information furnished by any Underwriter consists of the following information in the "Underwriting" section of the Final Prospectus furnished on behalf of each Underwriter: the fifth paragraph (beginning "The underwriters propose."), ninth paragraph (beginning "The underwriters have informed us…") and seventeenth paragraph (beginning "In connection with the offering, the underwriters may engage in stabilizing transactions…"). .

(c) *Actions against Parties; Notification*. Promptly after receipt by an indemnified party under this Section of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against the indemnifying party under subsection (a) or (b) above, notify the indemnifying party of the commencement thereof; but the failure to notify the indemnifying party shall not relieve it from any liability that it may have under subsection (a) or



(b) above except to the extent that it has been materially prejudiced (through the forfeiture of substantive rights or defenses) by such failure; and provided further that the failure to notify the indemnifying party shall not relieve it from any liability that it may have to an indemnified party otherwise than under subsection (a) or (b) above. In case any such action is brought against any indemnified party and it notifies the indemnifying party of the commencement thereof, the indemnifying party will be entitled to participate therein and, to the extent that it may wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party), and after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party will not be liable to such indemnified party under this Section for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement of any pending or threatened action 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 (i) includes an unconditional release of such indemnified party from all liability on any claims that are the

subject matter of such action and (ii) does not include a statement as to, or an admission of, fault, culpability or a failure to act by or on behalf of an indemnified party.

(d) *Contribution*. If the indemnification provided for in this Section is unavailable or insufficient to hold harmless an indemnified party under subsection (a) or (b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in subsection (a) or (b) above (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 from the offering of the Securities 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 the Underwriters on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities 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 proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The amount paid by an indemnified party as a result of the losses, claims, damages or liabilities referred to in the first sentence of this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any action or claim which is the subject of this subsection (d). Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Securities underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of such untrue 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 in this subsection (d) to contribute are several in proportion to their respective underwriting obligations and not joint. The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 8(d) 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 which does not take account of the equitable considerations referred to in this Section 8(d).

9. *Default of Underwriters*. If any Underwriter or Underwriters default in their obligations to purchase Offered Securities hereunder on either the First Closing Date or any Optional Closing Date and the aggregate number of shares of Offered Securities that such defaulting Underwriter or Underwriters agreed but failed to purchase does not exceed 10% of the total number of shares of Offered Securities that the Underwriters are obligated to purchase on such Closing Date, the Representatives may make arrangements satisfactory to the Company for the purchase of such Offered Securities by other persons, including any of the Underwriters, but if no such arrangements are made by such Closing Date, the non-defaulting Underwriters shall be obligated severally, in proportion to their respective commitments hereunder, to purchase the Offered Securities that such defaulting Underwriters agreed but failed to purchase on such Closing Date. If any Underwriter or Underwriters so default and the aggregate number of shares of Offered Securities with respect to which such default or defaults occur exceeds 10% of the total number of shares of Offered Securities that the Underwriters are obligated to purchase on such Closing Date and arrangements satisfactory to the Representatives and the Company for the purchase of such Offered Securities by other persons are not made within 36 hours after such default, this Agreement will terminate without liability on the part of any non-defaulting Underwriter or the Company, except as provided in Section 10 (provided that if such default occurs with respect to Optional Securities after the First Closing Date, this Agreement will not terminate as to the Firm Securities or any Optional Securities purchased prior to such termination). As used in this Agreement, the term "Underwriter" includes any person substituted for an Underwriter under this Section. Nothing herein will relieve a defaulting Underwriter from liability for its default.

10. *Survival of Certain Representations and Obligations*. The respective indemnities, agreements, representations, warranties and other statements of the Company or its officers and of the several Underwriters set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation, or statement as to the results thereof, made by or on behalf of any Underwriter, the Company or any of their respective representatives, officers or directors or any controlling person, and will survive delivery of and payment for the Offered Securities. If the purchase of the Offered Securities by the Underwriters is not consummated for any reason other than because of the termination of this Agreement pursuant to Section 9 hereof or as a result of any event set forth in Section 7(c)(ii), (iii), (v), (vi) or (vii), the Company will reimburse the Underwriters for all reasonably incurred and documented out-of-pocket expenses (including fees and disbursements of counsel) reasonably incurred by them in connection with the offering of the Offered Securities, and the respective obligations of the Company and the Underwriters pursuant to Section 8 hereof shall remain in effect. In addition, if any Offered Securities have been purchased hereunder, the representations and warranties in Section 2 and all obligations under Section 5 shall also remain in effect.

11. *Notices*. All communications hereunder will be in writing and, if sent to the Underwriters, will be mailed, delivered or telegraphed and confirmed to the Representatives, c/o Credit Suisse Securities (USA) LLC, Eleven Madison Avenue, New York, N.Y. 10010-3629, Attention: LCD-IBD, c/o Cowen and Company, LLC, 599 Lexington Avenue, 27th Floor, New York, New York 10022 or, if sent to the Company, will be mailed, delivered or telegraphed and confirmed to it at 863 Mitten Road, Suite 102, Burlingame, California 94010; Attention: Chief Financial Officer, with a copy to (which copy shall not constitute notice), Latham & Watkins LLP, 140 Scott Drive, Menlo Park, California 94025; Attention: Alan C. Mendelson, Esq.; provided, however, that any notice to an Underwriter pursuant to Section 8 will be mailed, delivered or telegraphed and confirmed to such Underwriter.

12. *Successors*. This Agreement will inure to the benefit of and be binding upon the parties hereto and their respective successors and the officers and directors and controlling persons referred to in Section 8, and no other person will have any right or obligation hereunder.



13. *Representation of Underwriters*. The Representatives will act for the several Underwriters in connection with this financing, and any action under this Agreement taken by the Representatives will be binding upon all the Underwriters.

14. *Counterparts*. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same Agreement.

15. *Absence of Fiduciary Relationship.* The Company acknowledges and agrees that:

(a) *No Other Relationship*. The Representatives have been retained solely to act as underwriters in connection with the sale of Offered Securities and that no fiduciary, advisory or agency relationship between the Company and the Representatives has been created in respect of any of the transactions contemplated by this Agreement or the Final Prospectus, irrespective of whether the Representatives have advised or are advising the Company on other matters;

(b) *Arms' Length Negotiations*. The price of the Offered Securities set forth in this Agreement was established by the Company following discussions and arms-length negotiations with the Representatives and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement;

(c) *Absence of Obligation to Disclose*. The Company has been advised that the Representatives and their affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Representatives have no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and

(d) *Waiver*. The Company waives, to the fullest extent permitted by law, any claims it may have against the Representatives for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that the Representatives shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company, including stockholders, employees or creditors of the Company.

16. ***Applicable Law*. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.**

The Company hereby submits to the non-exclusive jurisdiction of the Federal and state courts in the Borough of Manhattan in The City of New York in any suit or proceeding arising out of or relating to this Agreement or the transactions contemplated hereby. The Company irrevocably and unconditionally waives any objection to the laying of venue of any suit or proceeding arising out of or relating to this Agreement or the transactions contemplated hereby in Federal and state courts in the Borough of Manhattan in The City of New York and irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such suit or proceeding in any such court has been brought in an inconvenient forum.

17. ***Waiver of Jury Trial*.** Each party hereto hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.



If the foregoing is in accordance with the Representatives' understanding of our agreement, kindly sign and return to the Company one of the counterparts hereof, whereupon it will become a binding agreement between the Company and the several Underwriters in accordance with its terms.

Very truly yours,

CORVUS PHARMACEUTICALS, INC.

By: _____
Name:
Title:

[*Signature Page to Underwriting Agreement*]

The foregoing Underwriting Agreement is hereby confirmed and accepted as of the date first above written.

CREDIT SUISSE SECURITIES (USA) LLC

By: _____
Name:
Title:

COWEN AND COMPANY, LLC

By: _____
Name:
Title:

Acting on behalf of themselves and as the Representatives of the several Underwriters

[*Signature Page to Underwriting Agreement*]

**SCHEDULE A**

| Underwriter | Number of Firm Securities |
|---|---|
| Credit Suisse Securities (USA) LLC | |
| Cowen and Company, LLC | |
| Guggenheim Securities LLC | |
| BTIG, LLC | |
| Cantor Fitzgerald & Co. | |
| Total | |

**SCHEDULE B-1**

1. **General Use Free Writing Prospectuses (included in the General Disclosure Package)**

"General Use Issuer Free Writing Prospectus" includes each of the following documents:

1. None.

2. **Other Information Included in the General Disclosure Package**

The following information is also included in the General Disclosure Package:

1. The initial price to the public of the Offered Securities shall be $ .

2. The Company is selling shares of Common Stock.

3. The Company has granted an option to the Underwriters, severally and not jointly, to purchase up to an additional shares of Common Stock.

**SCHEDULE B-2**

Written Testing-the-Waters Communications

Reference is made to (i) that Investor Presentation, dated November 2015, presented to potential investors on November 18, 2015 through November 23, 2015 and December 4, 2015 and (ii) that Investor Presentation, dated January 2016, presented to potential investors on January 12, 2016 and January 13, 2016, in each case, provided supplementally to the Commission on January 13, 2016.

**Exhibit A**

**Form of Lock-up**

Date:

Corvus Pharmaceuticals, Inc.
863 Mitten Road Suite 102
Burlingame, CA 94010

CREDIT SUISSE SECURITIES (USA) LLC
COWEN AND COMPANY, LLC ,
As Representatives of the Several Underwriters,
c/o Credit Suisse Securities (USA) LLC,
Eleven Madison Avenue
New York, N.Y. 10010-3629
c/o Cowen and Company, LLC,
599 Lexington Avenue
New York, NY 10022

Dear Sirs:

As an inducement to the Underwriters to execute the Underwriting Agreement (the "**Underwriting Agreement**"), pursuant to which an offering ("**Offering**") will be made that is intended to result in the establishment of a public market for the common stock, par value $0.0001 (the "**Securities**") of

Corvus Pharmaceuticals, Inc. (the "**Company**"), the undersigned hereby agrees that during the period commencing on the date of this Lock-Up Agreement (this "**Lock-Up Agreement**") and ending 180 days after the public offering date set forth on the final prospectus used to sell the Securities (the "**Public Offering Date**") pursuant to the Underwriting Agreement, to which you are or expect to become parties (the "**Lock-Up Period**"), the undersigned will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any Securities or securities convertible into or exchangeable or exercisable for any Securities, enter into a transaction which would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of the Securities, whether any such aforementioned transaction is to be settled by delivery of the Securities or such other securities, in cash or otherwise, or publicly disclose the intention to make any such offer, sale, pledge or disposition, or to enter into any such transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of Credit Suisse Securities (USA) LLC and Cowen and Company, LLC (together the "**Representatives**"), in each case, other than (A) transfers of Securities or other securities as a bona fide gift or gifts or by testate succession or intestate distribution, (B) any Securities acquired by the undersigned in the Offering or on the open market following the Offering, (C) the exercise of stock options or other similar awards granted pursuant to the Company's equity incentive plans, provided that such restriction shall apply to any of the Securities issued to the undersigned upon such exercise, (D) any Securities or other securities that are transferred to the Company for the primary purpose of satisfying any tax or other governmental withholding obligation, through cashless surrender or otherwise, with respect to any award of equity-based compensation granted pursuant to the Company's equity incentive plans or in connection with tax or other obligations as a result of testate succession or intestate distribution, (E) the establishment of any contract, instruction or plan (a "**Plan**") that satisfies all of the requirements of Rule 10b5-1(c)(1)(i) (B) under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), provided that no sales of the undersigned's Securities shall be made pursuant to such a Plan prior to the expiration of the Lock-Up Period referred to above, (F) transfers not involving a disposition for value to a member or members of the undersigned's family or to a trust, the direct or indirect beneficiaries of which are the undersigned and/or a member or members of his or her family, (G) transfers or dispositions of the Undersigned's Securities by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the undersigned, (H) distributions not involving a disposition for value of Securities or other securities to members, partners or stockholders of the undersigned or to any corporation, partnership or other person or entity that is a direct or indirect affiliate of the undersigned (including, for the avoidance of doubt, a fund managed by the same manager or managing member or general partner or management company or by

---

an entity controlling, controlled by, or under common control with such manager or managing member or general partner or management company as the undersigned or who shares a common investment advisor with the undersigned), (I) the transfer or disposition of the undersigned's Securities or other securities that occurs by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement, (J) if the undersigned is an investment company registered under the Investment Company Act of 1940, as amended (a "Mutual Fund"), transfers of the undersigned's Securities pursuant to a merger or reorganization with or into another Mutual Fund that shares the same investment adviser registered pursuant to the requirements of the Investment Advisers Act of 1940, as amended and (K) the transfer of the undersigned's Securities or other securities to the Company pursuant to any contractual arrangement in effect on the date of this Lock-Up Agreement that provides for the repurchase of the undersigned's Securities or such other securities by the Company or in connection with the termination of the undersigned's employment or other service relationship with the Company; provided that in the case of any transfer or distribution pursuant to clause (A), (F), (G), (H), (I) or (J), each donee, distributee or transferee shall execute and deliver to the Representatives a lock-up letter in the form of this paragraph; and provided, further, that in the case of any transfer or distribution pursuant to clause (A), (B), or (D) through (I), no filing by any party (donor, donee, transferor or transferee) under Section 16 of the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the Lock-Up Period referred to above and other than disclosures required by Form 13F, Schedule 13D or Schedule 13G that are not (x) triggered by a specific transaction and (y) required to be filed during the Lock-Up Period). In addition, the undersigned agrees that, without the prior written consent of the Representatives, it will not, during the Lock-Up Period, make any demand for or exercise any right with respect to, the registration of any Securities or any security convertible into or exercisable or exchangeable for the Securities.

In the event that any of the restrictions set forth in this Lock-Up Agreement or in any similar letter agreement shall be waived or terminated with respect to any of the securities of any Holder (as defined in the Amended and Restated Investors' Rights Agreement dated September 16, 2015, by and among the Company and the investors listed on Exhibit A thereto), officer, director or holder of more than one percent of the Company's outstanding Securities (in any such case, the "**Released Securities**"), the same percentage of securities of each Holder as the percentage the Released Securities represent with respect to the Securities held by the applicable Holder, officer, director or holder of more than one percent of the Company's outstanding Securities shall be waived or terminated on the same terms (the "**Pro Rata Release**"), as applicable; *provided*, however, that in the case of a waiver or termination from the restrictions described herein during the Lock-Up Period in connection with an underwritten public offering of the Securities, whether or not such offering or sale is wholly or partially a secondary offering, such waiver or termination shall only apply with respect to the undersigned's participation in such offering or sale (provided that the conditions of the following paragraph are satisfied). The provisions of this paragraph will not apply unless and until the Representatives on behalf of the Underwriters have waived or terminated the restrictions set forth in this Lock-Up Agreement with respect to Securities subject to this Lock-Up Agreement or a similar letter agreement having an aggregate value of $2,000,000 or more.

Notwithstanding any other provisions of this Lock-Up Agreement, no waiver or termination will trigger the Pro Rata Release if such waiver or termination, in full or in part, is in connection with any follow on underwritten public offering, whether or not such offering or sale is wholly or partially a secondary offering of the Securities during the Lock-Up Period, so long as the undersigned, to the extent the undersigned has a contractual right to demand or require the registration of the undersigned's Securities or otherwise "Piggyback" on a registration statement filed by the Company for the offer and sale of Securities, is offered the opportunity to participate on a pro rata basis in such follow-on offering on pricing terms that are no less favorable than the terms of such follow-on offering, and in the event the Representatives make the determination to cut back the number of securities to be sold by all selling stockholders in the follow-on offering, such cut back shall be applied to the undersigned on a consistent basis.

The restrictions contained herein shall not apply to any transfers, sales, tenders or other dispositions of Securities or any security convertible into or exercisable or exchangeable for Securities pursuant to a bona fide third party tender offer made to all holders of the Company's common stock or a merger, amalgamation, consolidation or other similar transaction, in each case that is approved by the Board of Directors of the Company and that is on substantially the same terms for holders of at least 50.1% of the outstanding common stock of the Company, the result of which is that any "person" (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, other than the Company, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of 50% of total voting power of the voting stock of the Company (including, without limitation, the entering into any lock-up, voting or similar agreement pursuant to which the undersigned may agree to transfer, sell, tender or otherwise dispose of

---

Securities or other such securities in connection with such transaction, or vote any Securities or other such securities in favor of any such transaction); provided that if such tender offer, merger, amalgamation, consolidation or other similar transaction is not completed, any Securities or any security convertible into or exercisable or exchangeable for Securities subject to this Lock-Up Agreement shall remain subject to the restrictions contained in this Lock-Up Agreement.

In furtherance of the foregoing, the Company and its transfer agent and registrar are hereby authorized to decline to make any transfer of shares of Securities if such transfer would constitute a violation or breach of this Lock-Up Agreement.

If the undersigned is an officer or director of the Company, the undersigned further agrees that the foregoing restrictions in this Lock-Up Agreement shall be equally applicable to any issuer-directed Securities the undersigned may purchase in the above-referenced offering.

If the undersigned is an officer or director of the Company, (i) the Representatives 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 Securities, the Representatives 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 the Representatives 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 Lock-Up Agreement to the extent and for the duration that such terms remain in effect at the time of the transfer.

Notwithstanding the foregoing, this Lock-Up Agreement shall only be applicable to the Holders if all officers, directors and holders of more than one percent of the Company's outstanding Securities enter into a similar letter agreement.

In the event that either of the Representatives withdraws from or declines to participate in the Offering, all references to the Representatives contained in this agreement shall be deemed to refer to the sole Representative that continues to participate in the Offering (the "Sole Representative"), and, in such event, any written consent, waiver or notice given or delivered in connection with this agreement by the Sole Representative shall be deemed to be sufficient and effective for all purposes under this Agreement.

This Lock-Up Agreement shall be binding on the undersigned and the successors, heirs, personal representatives and assigns of the undersigned. This Lock-Up Agreement shall lapse and become null and void if the Public Offering Date shall not have occurred on or before June 30, 2016. The undersigned understands that (i) on June 30, 2016 if the Public Offering Date shall not have occurred, (ii) if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Securities to be sold thereunder, (iii) if the Representatives, on the one hand, or the Company, on the other hand, informs the other, prior to the execution of the Underwriting Agreement, that it has determined not to proceed with the Offering or (iv) the registration statement related to the Offering has been completely withdrawn prior to the closing of the Offering, the undersigned shall be released from all obligations under this Lock-Up Agreement. This Lock-Up Agreement and any claim, controversy or dispute arising under or related to this Lock-Up Agreement shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to the conflicts of laws principles thereof.

[*Signature page follows*]

---

Very truly yours,

**IF AN INDIVIDUAL:**

By: _____
*(duly authorized signature)*

Name: _____
*(please print full name)*

Email Address:

Address:

**IF AN ENTITY:**

_____
*(please print complete name of entity)*

By: _____
*(duly authorized signature)*

Name: _____
*(please print full name)*

Email Address:

Address:

[*Signature Page to Lock-Up Agreement*]

---

**Exhibit B**

**Form of Press Release**

Corvus Pharmaceuticals, Inc.
[Date]

Corvus Pharmaceuticals, Inc. ("Company") announced today that Credit Suisse and Cowen and Company, the book-running managers in the Company's recent public sale of shares of common stock, are [waiving] [releasing] a lock-up restriction with respect to shares of the Company's common stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver] [release] will take effect on , 20 , and the shares may be sold on or after such date.

**This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.**

**Exhibit 4.3**

**CORVUS PHARMACEUTICALS, INC.**

**AMENDED AND RESTATED**
**INVESTORS' RIGHTS AGREEMENT**

This Amended and Restated Investors' Rights Agreement (this "**Agreement**") is made as of September 16, 2015 (the "**Effective Date**"), by and among Corvus Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and the persons and entities listed on Exhibit A hereto (each, an "**Investor**" and collectively, the "**Investors**").

**RECITALS**

**A.** The Company and certain of the Investors party hereto have entered into that certain Series B Preferred Stock Purchase Agreement of even date herewith (the "**Series B Purchase Agreement**"), which provides for, among other things, the purchase by certain of the Investors of shares of the Company's Series B Preferred Stock, par value $0.0001 per share (the "**Series B Preferred Stock**");

**B.** A condition to the obligations of certain the Investors party to the Series B Purchase Agreement to purchase the Series B Preferred Stock is that the Company and the Investors enter into this Agreement; and

**C.** The Company and the Investors who own shares of the Company's Series A Preferred Stock, par value $0.0001 per share (the "**Series A Preferred Stock**"), and are party to that certain Investors' Rights Agreement, dated as of November 26, 2014 (the "**Prior Agreement**").

**D.** In order to further induce the Investors to purchase the Series B Preferred Stock, the undersigned Investors who own shares of the Company's Series A Preferred Stock and the Company desire to amend and restate in its entirety the Prior Agreement and to accept the rights and obligations created pursuant hereto in lieu of their rights and obligations under the Prior Agreement.

**NOW, THEREFORE**, in consideration of the mutual promises and covenants set forth herein, and certain other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

**1. Definitions**. As used in this Agreement, the following terms shall have the meanings set forth below:

(a) "**Affiliate**" means, with respect to any specified Investor, any other person or entity who directly or indirectly, controls, is controlled by or is under common control with such Investor, including without limitation any general partner, managing member, officer or director of such Investor, or any venture capital or other investment fund now or hereafter existing which is controlled by one or more general partners (or member thereof) or managing members of, or shares the same management company (or stockholder or member thereof) or registered investment adviser with, such Investor.

---

(b) "**Board**" means the Company's Board of Directors.

(c) "**Commission**" means the Securities and Exchange Commission or any other federal agency at the time administering the Securities Act.

(d) "**Common Stock**" means the Common Stock, par value $0.0001 per share, of the Company.

(e) "**Election Period**" shall have the meaning set forth in Section 4.4 hereto.

(f) "**Excess Securities**" shall have the meaning set forth in Section 4.4 hereto.

(g) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, or any similar successor federal statute and the rules and regulations thereunder, all as the same shall be in effect from time to time.

(h) "**Fund**" shall have the meaning set forth in Section 3.4 hereto.

(i) "**Holder**" means any Investor who holds Registrable Securities and any other holder of Registrable Securities to whom the registration rights conferred by this Agreement have been duly and validly transferred in accordance with Section 2.12 of this Agreement.

(j) "**Indemnified Party**" shall have the meaning set forth in Section 2.6(c) hereto.

(k) "**Indemnifying Party**" shall have the meaning set forth in Section 2.6(c) hereto.

(l) "**Initial Public Offering**" means the closing of the Company's first bona fide, firm commitment underwritten public offering of the Company's Common Stock registered under the Securities Act.

(m) "**Initiating Holders**" means any Holder or Holders who in the aggregate hold not less than thirty percent (30%) of the Registrable Securities then outstanding.

(n) "**Liquidation Event**" shall have the meaning set forth in the Company's Restated Certificate.

(o) "**Major Holder**" shall have the meaning set forth in Section 3.1(a) hereto.

(p) "**New Securities**" shall have the meaning set forth in Section 4.2 hereto.

(q) "**Other Selling Stockholders**" means persons other than Holders who, by virtue of agreements with the Company, are entitled to include their Other Shares in certain registrations hereunder.

(r) "**Other Shares**" means shares of Common Stock, other than Registrable Securities (including shares of Common Stock issuable upon conversion of shares of any



currently unissued series of Preferred Stock of the Company), with respect to which registration rights have been granted.

(s) "**Preferred Majority**" shall mean the holders of at least sixty percent (60%) of the shares of Common Stock that are issued or are issuable upon conversion of the Preferred Stock.

(t) "**Preferred Stock**" means, collectively, all shares of Series A Preferred Stock, Series B Preferred Stock and any other shares of Preferred Stock of the Company whether or not authorized as of the Effective Date.

(u) "**Pro Rata Amount**" shall have the meaning set forth in Section 4.1 hereto.

(v) "**Qualified Public Offering**" shall have the meaning set forth in the Restated Certificate.

(w) "**Registrable Securities**" means (i) shares of Common Stock issued or issuable pursuant to the conversion of the Shares and (ii) any shares of Common Stock issued as a dividend or other distribution with respect to or in exchange for or in replacement of the shares referenced in (i) above; *provided, however*, that Registrable Securities shall not include any shares of Common Stock described in clauses (i) or (ii) above which have been sold to the public either pursuant to a registration statement or Rule 144, or which have been sold in a private transaction in which the transferor's rights under this Agreement are not validly assigned in accordance with this Agreement; *provided, further, however,* that Registrable Securities shall not include any shares of Common Stock described in clauses (i) or (ii) above as to which rights have terminated pursuant to Section 2.14 hereto.

(x) "**Registrable Securities then outstanding**" means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

(y) The terms "**register**," "**registered**" and "**registration**" refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act and applicable rules and regulations thereunder, and the declaration or ordering of the effectiveness of such registration statement.

(z) "**Registration Expenses**" means all expenses incurred in effecting any registration pursuant to this Agreement, including, without limitation, all registration, qualification, and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company and the reasonable fees and disbursements of one special counsel for the Holders (not to exceed $35,000), blue sky fees and expenses, and expenses of any regular or special audits incident to or required by any such registration, but shall not include Selling Expenses, fees and disbursements of other counsel for the Holders and the compensation of regular employees of the Company, which shall be paid in any event by the Company.



(aa) "**Restated Certificate**" means the Company's Amended and Restated Certificate of Incorporation (as may be amended or restated from time to time).

(bb) "**Restricted Securities**" means any Registrable Securities required to bear the first legend set forth in Section 2.8(c) hereof.

(cc) "**ROFR Holder**" shall have the meaning set forth in Section 4.1 hereto.

(dd) "**ROFR Shares**" shall have the meaning set forth in Section 4.1 hereto.

(ee) "**Rule 144**" means Rule 144 as promulgated by the Commission under the Securities Act, as such Rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

(ff) "**Rule 145**" means Rule 145 as promulgated by the Commission under the Securities Act, as such Rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission

(gg) "**Securities Act**" means the Securities Act of 1933, as amended, or any similar successor federal statute and the rules and regulations thereunder, all as the same shall be in effect from time to time.

(hh) "**Selling Expenses**" means all underwriting discounts, selling commissions and stock transfer taxes applicable to the sale of Registrable Securities and fees and disbursements of counsel for any Holder (other than the fees and disbursements of one special counsel to the Holders included in Registration Expenses).

(ii) "**Series A Preferred Stock**" shall have the meaning set forth in the Recitals hereto.

(jj) "**Series A Purchase Agreement**" means that certain Series A Preferred Stock Purchase Agreement, dated as of November 26, 2014, by and among the Company and the Investors named in Exhibit A attached thereto.

(kk) "**Series B Preferred Stock**" shall have the meaning set forth in the Recitals hereto.

(ll) "**Series B Purchase Agreement**" shall have the meaning set forth in the Recitals hereto.

(mm) "**Shares**" means the Preferred Stock.

(nn) "**Withdrawn Registration**" means a forfeited demand registration under Section 2.1 in accordance with the terms and conditions of Section 2.4.



**2. Registration Rights.**

**2.1 Requested Registration.**

(a) **Registration**. Subject to the conditions set forth in this Section 2.1, if the Company shall receive from Initiating Holders a written request signed by such Initiating Holders that the Company effect any registration with respect to all or a part of the Registrable Securities (such request shall state the number of shares of Registrable Securities proposed to be disposed of by such Initiating Holders), the Company will:

(i) promptly give written notice of the proposed registration to all other Holders; and

(ii) as soon as practicable, but in any event within ninety (90) days after the Company's receipt of such written request, file and use its commercially reasonable efforts to effect such registration (including, without limitation, filing post-effective amendments, appropriate qualifications under applicable blue sky or other state securities laws, and appropriate compliance with the Securities Act) and to permit or facilitate the sale and distribution of all or such portion of such Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request received by the Company within thirty (30) days after such written notice from the Company is mailed or delivered.

(b) **Limitations on Requested Registration**. The Company shall not be obligated to effect, or to take any action to effect, any such registration pursuant to this Section 2.1:

(i) Prior to the earlier of (A) the three (3) year anniversary of the date of this Agreement or (B) six (6) months following the effective date of the first registration statement filed by the Company covering an underwritten offering of any of its securities to the general public (or the subsequent date on which all market stand-off agreements applicable to the offering have terminated, not to exceed an additional thirty-four (34) days);

(ii) If the Company has not yet offered securities pursuant to a registration statement and the Initiating Holders propose to sell less than 20% of the Registrable Securities held by such Initiating Holders unless such lesser number of Registrable Securities proposed to be sold by the Initiating Holders is expected to result in aggregate net proceeds (after deduction for underwriter's discounts and expenses related to the issuance) greater than $20,000,000 (or if after the Initial Public Offering, Registrable Securities with an anticipated aggregate offering price of at least $5,000,000);

(iii) In any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, qualification, or compliance, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(iv) After the Company has initiated two (2) such registrations pursuant to this Section 2.1 (counting for these purposes only (x) registrations which have been declared or ordered effective and pursuant to which securities have been sold, and (y) Withdrawn Registrations);



(v) During the period that is thirty (30) days prior to the Company's good faith estimate of the date of filing of, and ending on a date ninety (90) days (or one hundred eighty (180) days, in the case of an Initial Public Offering) after the effective date of a Company-initiated registration (or ending on the subsequent date on which all market stand-off agreements applicable to the offering have terminated, not to exceed an additional thirty-four (34) days); *provided* that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective;

(vi) If the Initiating Holders propose to dispose of shares of Registrable Securities that may be registered on Form S-3 pursuant to a request made under Section 2.3 hereof;

(vii) If the Initiating Holders do not request that such offering be firmly underwritten by underwriters selected by the Initiating Holders holding in the aggregate a majority the Registrable Securities held by such Initiating Holders (subject to the consent of the Company, which consent shall not be unreasonably withheld, delayed or conditioned); or

(viii) If the Company and the Initiating Holders are unable to obtain the commitment of the underwriter described in clause (b)(vii) above to firmly underwrite the offer.

(c) **Deferral**. If (i) in the good faith judgment of the Board, the filing of a registration statement covering the Registrable Securities would be materially detrimental to the Company and the Board concludes, as a result, that it is in the best interests of the Company to defer the filing of such registration statement at such time, and (ii) the Company shall furnish to such Holders a certificate signed by the President (or other comparable senior executive officer) of the Company stating that in the good faith judgment of the Board, it would be materially detrimental to the Company for such registration statement to be filed in the near future and that it is, therefore, in the best interests of the Company to defer the filing of such registration statement, then (in addition to the limitations set forth in Section 2.1(b)(v) above) the Company shall have the right to defer such filing for a period of not more than one hundred (100) days after receipt of the request of the Initiating Holders, and, *provided further*, that the Company shall not defer its obligation in this manner more than two (2) times in any twelve-month period.

(d) **Other Shares**. The registration statement filed pursuant to the request of the Initiating Holders may, subject to the provisions of Section 2.1(e), include Other Shares, and may include securities of the Company being sold for the account of the Company.

(e) **Underwriting**. If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as part of their request made pursuant to this Section 2.1 and the Company shall include such information in the written notice given pursuant to Section 2.1(a)(i). In such event, the right of any Holder to include all or any portion of its Registrable Securities in a registration pursuant to this Section 2.1 shall be conditioned upon such Holder's participation in a underwriting. In such case, if the Company shall request inclusion in any registration pursuant to Section 2.1 of securities being sold for its own account, or if other persons shall request inclusion in any registration pursuant to Section 2.1, the Initiating Holders shall, on behalf of all Holders, offer to include such securities in the underwriting and such offer shall be conditioned upon the



participation of the Company or such other persons in such underwriting and the inclusion of the Company's and such person's other securities of the Company and their acceptance of the further applicable provisions of this Section 2 (including Section 2.10). The Company shall (together with all Holders and other persons proposing to distribute their securities through such underwriting) enter into an underwriting agreement in customary form with the representative of the underwriter or underwriters selected for such underwriting by the Initiating Holders holding in the aggregate a majority of the Registrable Securities held by the Initiating Holders, which underwriters are reasonably acceptable to the Company.

Notwithstanding any other provision of this Section 2.1, if the underwriters advise the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, the number of Registrable Securities and Other Shares that may be so included shall be allocated as follows: (i) first, among all Holders requesting to include Registrable Securities in such registration statement based on the pro rata percentage of Registrable Securities held by such Holders, assuming conversion (provided that if, by operation of this clause (i), the number of Registrable Securities to be so included is reduced to less than 50% of the aggregate number of Registrable Securities so requested by all Holders to be included, then the holders of a majority of the Registrable Securities may withdraw the request for such registration and, in such a case, (A) such registration shall not be counted as a registration "initiated" by the Company for purposes of Section 2.1(b)(iv) or "effected" by the Company for purposes of Section 2.3(b)(iii) and (B) the Company shall bear the Registration Expenses of such registration notwithstanding any provision of Section 2.4 to the contrary); and (ii) second, among all Other Selling Stockholders requesting to include Other Shares in such registration statement based on the pro rata percentage of Other Shares held by such Other Selling Stockholders, assuming conversion; and (iii) third, to the Company, which the Company may allocate, at its discretion, for its own account, or for the account of other stockholders or employees of the Company. If a person who has requested inclusion in such registration as provided above does not agree to the terms of any such underwriting, such person shall be excluded therefrom by written notice from the Company, the underwriter or the Initiating Holders. The securities so excluded shall also be withdrawn from registration. Any Registrable Securities or other securities excluded or withdrawn from such underwriting shall also be withdrawn from such registration. If shares are so withdrawn from the registration and if the number of shares to be included in such registration was previously reduced as a result of marketing factors pursuant to this Section 2.1(e), then the Company shall then offer to all Holders and Other Selling Stockholders who have retained rights to include securities in the registration the right to include additional Registrable Securities or Other Shares in the registration in an aggregate amount equal to the number of shares so withdrawn, with such shares to be allocated among such Holders and Other Selling Stockholders requesting additional inclusion, as set forth above.



**2.2 Company Registration.**

(a) **Registration**. If the Company shall determine to register any of its securities either for its own account or the account of a security holder or holders, other than a registration pursuant to Section 2.1 or 2.3, a registration relating solely to employee benefit plans, a registration relating to the offer and sale of debt securities only, or a registration relating to a corporate reorganization or other Rule 145 transaction, the Company will:

(i) promptly give written notice of the proposed registration to all Holders; and

(ii) use its commercially reasonable efforts to include in such registration (and any related qualification under blue sky laws or other compliance), except as set forth in Section 2.2(b) below, and in any underwriting involved therein, all of such Registrable Securities as are specified in a written request or requests made by any Holder or Holders received by the Company within ten (10) days after such written notice from the Company is mailed or delivered. Such written request may specify all or a part of a Holder's Registrable Securities.

(b) **Underwriting**. If the registration of which the Company gives notice is for a registered public offering involving an underwriting, the Company shall so advise the Holders as a part of the written notice given pursuant to Section 2.2(a)(i). In such event, the right of any Holder to registration pursuant to this Section 2.2 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company, the Other Selling Stockholders and other holders of securities of the Company with registration rights to participate therein distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the representative of the underwriter or underwriters selected by the Company.

Notwithstanding any other provision of this Section 2.2, if the underwriters advise the Company in writing that marketing factors require a limitation on the number of shares to be underwritten, the underwriters may (subject to the limitations set forth below) limit the number of Registrable Securities to be included in, the registration and underwriting, the Company shall so advise all holders of securities requesting registration, and the number of shares of securities that are entitled to be included in the registration and underwriting shall be allocated, as follows: (i) first, to the Company for securities being sold for its own account, (ii) second, to the Holders requesting to include Registrable Securities in such registration statement based on the pro rata percentage of Registrable Securities held by such Holders, assuming conversion; and (iii) third, to the Other Selling Stockholders requesting to include Other Shares in such registration statement based on the pro rata percentage of Other Shares held by such Other Selling Stockholders, assuming conversion. Notwithstanding the foregoing, no such reduction shall reduce the value of the Registrable Securities of the Holders included in such registration below twenty-five percent (25%) of the total value of securities included in such registration, unless such offering is an Initial Public Offering and such registration does not include shares of any

Other Selling Stockholders (excluding shares registered for the account of the Company), in which event any or all of the Registrable Securities of the Holders may be excluded.

If a person who has requested inclusion in such registration as provided above does not agree to the terms of any such underwriting, such person shall also be excluded therefrom by written notice from the Company or the underwriter. The Registrable Securities or other securities so excluded shall also be withdrawn from such registration. Any Registrable Securities or other securities excluded or withdrawn from such underwriting shall be withdrawn from such registration.

(c) **Right to Terminate Registration**. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration.

**2.3 Registration on Form S-3.**

(a) **Request for Form S-3 Registration**. After its Initial Public Offering, the Company shall use its commercially reasonable efforts to qualify for registration on Form S-3 or any comparable or successor form or forms. After the Company has qualified for the use of Form S-3, in addition to the rights contained in the foregoing provisions of this Section 2 and subject to the conditions set forth in this Section 2.3, if the Company shall receive from a Holder or Holders of Registrable Securities a written request that the Company effect any registration on Form S-3 or any similar short form registration statement with respect to all or part of the Registrable Securities (such request shall state the number of shares of Registrable Securities to be disposed of and the intended methods of disposition of such shares by such Holder or Holders), the Company will take all such action with respect to such Registrable Securities as required by Sections 2.1(a)(i) and 2.1(a)(ii).

(b) **Limitations on Form S-3 Registration**. The Company shall not be obligated to effect, or take any action to effect, any such registration pursuant to this Section 2.3:

(i) In the circumstances described in any of Sections 2.1(b)(i), 2.1(b)(iii) or 2.1(b)(v);

(ii) If the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) on Form S-3 at an aggregate price to the public of less than $2,000,000 (net of underwriting discounts and commissions); or

(iii) If, in a given twelve-month period, the Company has effected two (2) such registrations in such period.

(c) **Deferral**. The provisions of Section 2.1(c) shall apply to any registration pursuant to this Section 2.3.

(d) **Underwriting**. If the Holders of Registrable Securities requesting registration under this Section 2.3 intend to distribute the Registrable Securities covered by their



request by means of an underwriting, the provisions of Section 2.1(e) shall apply to such registration. Notwithstanding anything contained herein to the contrary, registrations effected pursuant to this Section 2.3 shall not be counted as requests for registration or registrations effected pursuant to Section 2.1.

**2.4 Expenses of Registration**. All Registration Expenses incurred in connection with registrations pursuant to Sections 2.1, 2.2 and 2.3 hereof shall be borne by the Company; *provided*, *however*, that, subject to Section 2.1(e), the Company shall not be required to pay for any Registration Expenses of any registration proceeding begun pursuant to Sections 2.1 and 2.3 if the registration request is subsequently withdrawn at the request of the Preferred Majority or because a sufficient number of Holders shall have withdrawn so that the minimum offering conditions set forth in Section 2.1 and 2.3 are no longer satisfied (in which case all participating Holders shall bear such expenses pro rata among each other based on the number of Registrable Securities requested to be so registered), unless the Preferred Majority agree to forfeit their right to a demand registration pursuant to Section 2.1; *provided*, *however*, in the event that a withdrawal by the Holders is based upon material adverse information relating to the Company that is different from the information known or available (upon request from the Company or otherwise) to the Holders requesting registration at the time of their request for registration under Sections 2.1 or 2.3, such registration shall not be treated as a counted registration for purposes of Sections 2.1 or 2.3 hereof, and the Company shall bear the Registration Expenses for such registration. All Selling Expenses relating to securities registered on behalf of the Holders shall be borne by the holders of securities included in such registration pro rata among each other on the basis of the number of Registrable Securities so registered.

**2.5 Registration Procedures**. In the case of each registration effected by the Company pursuant to Section 2, the Company will keep each Holder advised in writing as to the initiation of each registration and as to the completion thereof. At its expense, the Company will use its commercially reasonable efforts to:

(a) Keep such registration effective for a period of ending on the earlier of the date which is sixty (60) days from the effective date of the registration statement or such time as the Holder or Holders have completed the distribution described in the registration statement relating thereto;

(b) To the extent the Company is a well-known seasoned issuer (as defined in Rule 405 under the Securities Act) (a "**WKSI**") at the time any request for registration is submitted to the Company in accordance with Section 2.3, (i) if so requested, file an automatic shelf registration statement (as defined in Rule 405 under the Securities Act) (an "**automatic shelf registration statement**") to effect such registration, and (ii) remain a WKSI (and not become an ineligible issuer (as defined in Rule 405 under the Securities Act)) during the period during which such automatic shelf registration statement is required to remain effective in accordance with this Agreement;

(c) Prepare and file with the Commission such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to

the disposition of all securities covered by such registration statement for the period set forth in subsection (a) above;

(d) Furnish such number of prospectuses, including any preliminary prospectuses, and other documents incident thereto, including any amendment of or supplement to the prospectus, as a Holder from time to time may reasonably request;

(e) Register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdiction as shall be reasonably requested by the Holders; *provided*, that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions;

(f) Notify each seller of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading or incomplete in light of the circumstances then existing, and following such notification promptly prepare and furnish to such seller a reasonable number of copies of a supplement to or an amendment of such prospectus as may be necessary so that, as thereafter delivered to the purchasers of such shares, such prospectus shall not include 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 or incomplete in light of the circumstances then existing;

(g) If at any time when the Company is required to re-evaluate its WKSI status for purposes of an automatic shelf registration statement used to effect a request for registration in accordance with Section 2.3, (i) the Company determines that it is not a WKSI, (ii) the registration statement is required to be kept effective in accordance with this Agreement, and (iii) the registration rights of the applicable Holders have not terminated, reasonably promptly amend the registration statement onto a form the Company is then eligible to use or file a new registration statement on such form, and keep such registration statement effective in accordance with the requirements otherwise applicable under this Agreement;

(h) If (i) a registration made pursuant to a shelf registration statement is required to be kept effective in accordance with this Agreement after the third anniversary of the initial effective date of the shelf registration statement and (ii) the registration rights of the applicable Holders have not terminated, file a new registration statement with respect to any unsold Registrable Securities subject to the original request for registration prior to the end of the three year period after the initial effective date of the shelf registration statement, and keep such registration statement effective in accordance with the requirements otherwise applicable under this Agreement;

(i) Furnish, on the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters, (i) an opinion, dated as of such date, of the counsel representing the Company for the purposes of such registration, in



form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and (ii) a “comfort” letter dated as of such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters;

(j) Provide a transfer agent and registrar for all Registrable Securities registered pursuant to such registration statement and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(k) Otherwise comply with all applicable rules and regulations of the Commission, and make available to its security holders, as soon as reasonably practicable, an earnings statement covering the period of at least twelve months, but not more than eighteen months, beginning with the first month after the effective date of the Registration Statement, which earnings statement shall satisfy the provisions of Section 11(a) of the Securities Act;

(l) Cause all such Registrable Securities registered pursuant hereunder to be listed on each securities exchange on which similar securities issued by the Company are then listed; *provided* that in the case of the Initial Public Offering, the Registrable Securities shall be listed on a national securities exchange; and

(m) In connection with any underwritten offering pursuant to a registration statement filed pursuant to Section 2.1 hereof, enter into an underwriting agreement in form reasonably necessary to effect the offer and sale of Common Stock, *provided* such underwriting agreement contains reasonable and customary provisions, and *provided further*, that each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

**2.6 Indemnification.**

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, each of its officers, directors and partners, legal counsel, accountants and investment advisers and each person controlling such Holder within the meaning of Section 15 of the Securities Act, with respect to which registration, qualification or compliance has been effected pursuant to this Section 2, and each underwriter, if any, and each person who controls within the meaning of Section 15 of the Securities Act any underwriter, against all expenses, claims, losses, damages and liabilities (or actions, proceedings or settlements in respect thereof) arising out of or based on: (i) any untrue statement (or alleged untrue statement) of a material fact contained or incorporated by reference in any registration statement, prospectus, offering circular, issuer free writing prospectus (as defined in Rule 433 of the Securities Act), issuer information (as defined in Rule 433 of the Securities Act) filed or required to be filed pursuant to Rule 433(d) under the Securities Act or any other document incident to any such registration or related qualification or compliance, (ii) any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (iii) any violation (or alleged violation) by the Company of the Securities Act, any state securities laws or any rule or regulation thereunder applicable to the Company and relating to action or inaction required of the Company in connection with any offering covered by such

registration, qualification or compliance, and the Company will reimburse each such Holder, each of its officers, directors, partners, legal counsel and accountants and each person controlling such Holder, each such underwriter and each person who controls any such underwriter, for any legal and any other expenses reasonably incurred in connection with investigating and defending or settling any such claim, loss, damage, liability or action; *provided* that the Company will not be liable in any such case to the extent that any such claim, loss, damage, liability, or action arises out of or is based on any untrue statement or omission based upon written information furnished to the Company by such Holder, any of such Holder's officers, directors, partners, legal counsel or accountants, any person controlling such Holder, such underwriter or any person who controls any such underwriter, and stated to be specifically for use therein; and *provided*, *further* that, the indemnity agreement contained in this Section 2.6(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld).

(b) To the extent permitted by law, each Holder will, if Registrable Securities held by such Holder are included in the securities as to which such registration, qualification or compliance is being effected, severally and not jointly, indemnify and hold harmless the Company, each of its directors, officers, partners, legal counsel and accountants and each underwriter, if any, of the Company's securities covered by such a registration statement, each person who controls the Company or such underwriter within the meaning of Section 15 of the Securities Act, each other such Holder, and each of their officers, directors and partners, and each person controlling each other such Holder, against all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on (in each case only to the extent that such claims, losses, damages and liabilities arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration): (i) any untrue statement (or alleged untrue statement) of a material fact contained or incorporated by reference in any prospectus, offering circular or other document (including any related registration statement, notification, or the like) incident to any such registration, qualification or compliance, or (ii) any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse the Company and such Holders, directors, officers, partners, legal counsel and accountants, persons, underwriters, or control persons for any legal or any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action, in each case to the extent, but only to the extent, that such untrue statement (or alleged untrue statement) or omission (or alleged omission) is made in such registration statement, prospectus, offering circular or other document in reliance upon and in conformity with written information furnished to the Company by such Holder and stated to be specifically for use therein; *provided*, *however*, that the obligations of such Holder hereunder shall not apply to amounts paid in settlement of any such claims, losses, damages or liabilities (or actions in respect thereof) if such settlement is effected without the consent of such Holder (which consent shall not be unreasonably withheld); and *provided* that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under this Section 2.6(b) and Section 2.6(d) exceed the net proceeds from the offering received by such Holder, except in the case of fraud or willful misconduct by such Holder.



(c) Each party entitled to indemnification under this Section 2.6 (the "**Indemnified Party**") shall give notice to the party required to provide indemnification (the "**Indemnifying Party**") promptly after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party to assume the defense of such claim or any litigation resulting therefrom; *provided* that counsel for the Indemnifying Party, who shall conduct the defense of such claim or any litigation resulting therefrom, shall be approved by the Indemnified Party (whose approval shall not be unreasonably withheld), and the Indemnified Party may participate in such defense at such party's expense; and *provided further* that the failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Section 2.6, to the extent such failure is not prejudicial. No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement that does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation. Each Indemnified Party shall furnish such information regarding itself or the claim in question as an Indemnifying Party may reasonably request in writing and as shall be reasonably required in connection with defense of such claim and litigation resulting therefrom.

(d) If the indemnification provided for in this Section 2.6 is held by a court of competent jurisdiction to be unavailable to an Indemnified Party with respect to any loss, liability, claim, damage, or expense referred to herein, then the Indemnifying Party, in lieu of indemnifying such Indemnified Party hereunder, shall contribute to the amount paid or payable by such Indemnified Party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and of the Indemnified Party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations. The relative fault of the Indemnifying Party and of the Indemnified Party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the Indemnifying Party or by the Indemnified Party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission. In no event shall a Holder's liability pursuant to this Section 2.6(d), when combined with the amounts paid or payable by such Holder pursuant to Section 2.6(b), exceed the net proceeds from the offering received by such Holder, except in the case of fraud or willful misconduct by such Holder. No person or entity guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any person or entity who was not guilty of such fraudulent misrepresentation.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into by the Investors in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control; *provided* that the failure of the underwriting agreement to provide for or address a matter provided for or addressed in the foregoing provisions shall not be a conflict with the foregoing provisions and, in such event, the foregoing provisions shall control.



**2.7** **Information by Holder**. Each Holder of Registrable Securities shall furnish to the Company such information regarding such Holder and the distribution proposed by such Holder as the Company may reasonably request in writing and as shall be reasonably required in connection with any registration, qualification, or compliance referred to in this Section 2.

**2.8** **Restrictions on Transfer.**

(a) The holder of each certificate representing Registrable Securities by acceptance thereof agrees to comply in all respects with the provisions of this Section 2.8. Each Holder agrees not to make any sale, assignment, transfer, pledge or other disposition of all or any portion of the Restricted Securities, or any beneficial interest therein, unless and until:

(i) There is then in effect a registration statement under the Securities Act covering such proposed disposition and the disposition is made in accordance with the registration statement; or

(ii) (x) if such transfer is prior to the Company's Initial Public Offering, the Holder shall have given prior written notice to the Company of the Holder's intention to make such disposition and shall have furnished the Company with a detailed description of the manner and circumstances of the proposed disposition, (y) if such transfer is prior to the Company's Initial Public Offering, the transferee thereof shall have agreed in writing for the benefit of the Company to take and hold such Restricted Securities subject to, and to be bound by, the terms and conditions set forth in this Agreement, including, without limitation, this Section 2.8 and Section 2.10, and (z) if reasonably requested by the Company, the Holder shall have furnished the Company, at its expense, with (1) an opinion of counsel reasonably satisfactory to the Company to the effect that such disposition will not require registration of such Restricted Securities under the Securities Act or (2) a "no action" letter from the Commission to the effect that the transfer of such securities without registration will not result in a recommendation by the staff of the Commission that action be taken with respect thereto, whereupon the holder of such Restricted Securities shall be entitled to transfer such Restricted Securities in accordance with the terms of the notice delivered by the Holder to the Company.

(b) Notwithstanding the provisions of Section 2.8(a), no such registration statement, opinion of counsel or "no action" letter shall be required for (i) a transfer not involving a change in beneficial ownership, (ii) a transfer under Rule 144, except in unusual circumstances, or (iii) transactions involving the transfer of Restricted Securities by any Holder to (x) a parent, subsidiary or other Affiliate of the Holder; (y) any of the Holder's partners, members or other equity owners, or retired partners, retired members or other equity owners, or to the estate of any of the Holder's partners, members or other equity owners or retired partners, retired members or other equity owners; or (z) to any venture capital fund, private equity fund or other investment fund that, in each case, is controlled by or under common control with one or more general partners or managing members of, or shares the same management company or registered investment adviser with, the Holder; *provided*, in each case, that the Holder shall give written notice to the Company of the Holder's intention to effect such disposition and shall have furnished the Company with a detailed description of the manner and circumstances of the proposed disposition and, if such transfer is prior to the Company's Initial Public Offering, the transferee thereof shall have agreed in writing for the benefit of the Company to take and hold



such Restricted Securities subject to, and to be bound by, the terms and conditions set forth in this Agreement, including, without limitation, this Section 2.8 and Section 2.10.

(c) Each certificate representing Registrable Securities shall (unless otherwise permitted by the provisions of this Agreement) be stamped or otherwise imprinted with a legend substantially similar to the following (in addition to any legend required under applicable state securities laws):

> THE OFFER AND SALE OF THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR UNDER THE SECURITIES LAWS OF CERTAIN STATES. THESE SECURITIES MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED EXCEPT AS PERMITTED UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS PURSUANT TO REGISTRATION OR AN EXEMPTION THEREFROM. THE ISSUER OF THESE SECURITIES MAY REQUIRE AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE ISSUER THAT SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION OTHERWISE COMPLIES WITH THE ACT AND ANY APPLICABLE STATE SECURITIES LAWS.
>
> THE SHARES EVIDENCED HEREBY ARE SUBJECT TO A VOTING AGREEMENT (A COPY OF WHICH MAY BE OBTAINED UPON WRITTEN REQUEST FROM THE ISSUER), AND BY ACCEPTING ANY INTEREST IN SUCH SHARES THE PERSON ACCEPTING SUCH INTEREST SHALL BE DEEMED TO AGREE TO AND SHALL BECOME BOUND BY ALL THE PROVISIONS OF SAID VOTING AGREEMENT.
>
> THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE, INCLUDING A LOCK-UP PERIOD IN THE EVENT OF A PUBLIC OFFERING, AS SET FORTH IN AN INVESTORS' RIGHTS AGREEMENT AMONG THE COMPANY AND THE ORIGINAL HOLDERS OF THESE SHARES, COPIES OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE COMPANY.

The Holders consent to the Company making a notation on its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer established in this Section 2.8.

(d) The first legend referring to federal and state securities laws identified in Section 2.8(b) hereof stamped on a certificate evidencing the Restricted Securities and the stock transfer instructions and record notations with respect to such Restricted Securities shall be removed and the Company shall issue a certificate without such legend to the holder of such



Restricted Securities if (i) such securities are registered under the Securities Act or, if following the Initial Public Offering, such securities are sold pursuant to Rule 144, or (ii) such holder provides the Company with an opinion of counsel reasonably acceptable to the Company to the effect that a sale or transfer of the securities may be made without registration or qualification.

(e) Notwithstanding anything to the contrary in this Agreement, (i) any or all of an Investor's rights hereunder may be exercised by, and any or all of an Investor's obligations hereunder may be discharged by, one or more Affiliates of such Investor designated by such Investor and (ii) more specifically, (x) an Investor may cause any shares of capital stock of the Company (or any securities directly or indirectly exercisable for, or convertible into or exchangeable for, such shares) required or permitted to be purchased or otherwise acquired hereunder by such Investor to be so purchased or acquired, in

lieu of such Investor, by an Affiliate of such Investor (and such Affiliate shall then become an "Investor" hereunder), and (y) any Investor holding securities directly or indirectly exercisable for, or convertible into or exchangeable for, shares of capital stock of the Company shall have the right to have any such shares (or other securities) issuable upon the conversion, exercise or exchange of the securities held by such Investor issued in the name of one or more Affiliates of such Investor designated by such Investor (and each such Affiliate shall then become an "Investor" hereunder).

**2.9** **Rule 144 Reporting**. With a view to making available the benefits of certain rules and regulations of the Commission that may permit the sale of the Restricted Securities to the public without registration, the Company agrees to use its commercially reasonable efforts to:

(a) Make and keep adequate current public information with respect to the Company available in accordance with Rule 144 under the Securities Act, at all times following the effective date of the first registration under the Securities Act filed by the Company for an offering of its securities to the general public;

(b) File with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act at any time after it has become subject to such reporting requirements; and

(c) So long as a Holder owns any Restricted Securities, furnish to the Holder forthwith upon written request a written statement by the Company as to its compliance with the reporting requirements of Rule 144 (at any time from and after ninety (90) days following the effective date of the first registration statement filed by the Company for an offering of its securities to the general public), and of the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements), a copy of the most recent annual or quarterly report of the Company, and such other reports and documents so filed as a Holder may reasonably request in availing itself of any rule or regulation of the Commission allowing a Holder to sell any such securities without registration.

**2.10** **Market Stand-Off Agreement**. Each Holder 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 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 reasonably requested by the underwriters to



accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD 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 or any securities convertible into or exercisable or exchangeable for Common Stock held immediately before the effective date of the registration statement for the Initial Public 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, in cash or otherwise. The foregoing provisions of this Section 2.10 (A) shall apply only to the Initial Public Offering, (B) shall not apply to shares of Common Stock acquired in the Initial Public Offering or in the open market following the Initial Public Offering, (C) shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, and (D) shall only be applicable to the Holders if all officers, directors and greater than one percent (1%) stockholders of the Company enter into similar agreements. The underwriters in connection with the Initial Public Offering are intended third-party beneficiaries of this Section 2.10 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in the Initial Public Offering that are consistent with this Section 2.10 or that are necessary to give further effect thereto. If any of the obligations described in this Section 2.10 are waived or terminated with respect to any of the securities of any such Holder, officer, director or greater than one-percent stockholder (in any such case, the "**Released Securities**"), the foregoing provisions shall be waived or terminated, as applicable, to the same extent and with respect to the same percentage of securities of each Holder as the percentage of Released Securities represent with respect to the securities held by the applicable Holder, officer, director or greater than one-percent stockholder, subject to customary and mutually agreeable exceptions.

In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Registrable Securities of each Holder (and the shares or securities of every other person subject to the foregoing restriction) until the end of such period.

**2.11** **Delay of Registration**. No Holder shall have any right to take any action to restrain, enjoin, or otherwise delay any registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

**2.12** **Transfer or Assignment of Registration Rights**. The rights to cause the Company to register securities granted to a Holder by the Company under this Section 2 may be transferred or assigned by a Holder only to a transferee or assignee of not less than twenty percent (20%) of the Registrable Securities (as presently constituted and subject to subsequent adjustments for stock splits, stock dividends, reverse stock splits, and the like) then held by such Holder; *provided* that (i) such transfer or assignment of Registrable Securities is effected in accordance with the terms of Section 2.8 hereof and applicable securities laws, (ii) the Company is given written notice prior to said transfer or assignment, stating the name and address of the transferee or assignee and identifying the securities with respect to which such registration rights



are intended to be transferred or assigned and (iii) the transferee or assignee of such rights assumes in writing the obligations of such Holder under this Agreement, including without limitation the obligations set forth in Section 2.10.

**2.13** **Limitations on Subsequent Registration Rights**. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Preferred Majority, enter into any agreement with any holder or prospective holder of any securities of the Company giving such holder or prospective holder any registration rights the terms of which are senior to or on parity with the registration rights granted to the Holders hereunder.

**2.14** **Termination of Registration Rights**. The right of any Holder to request registration or inclusion in any registration pursuant to Sections 2.1, 2.2 or 2.3 shall terminate on the earlier of (i) such date, on or after the closing of the Company's first registered public offering of Common

Stock, on which all shares of Registrable Securities held or entitled to be held upon conversion by such Holder may immediately be sold under Rule 144 during any ninety (90) day period (and without the requirement for the Company to be in compliance with the current public information required under Section (c)(1) of Rule 144) and (ii) four (4) years after the closing of a Qualified Public Offering.

**3. Information Covenants of the Company.**

The Company hereby covenants and agrees, as follows:

**3.1 Basic Financial Information and Observation Rights.**

(a) **Basic Financial Information**. As long as least 20% of the aggregate shares of Preferred Stock issued pursuant to the Series A Purchase Agreement and Series B Purchase Agreement remain outstanding, the Company will furnish to each Holder who continues to hold the equivalent of at least five percent (5%) of the outstanding shares of the applicable series of Preferred Stock (each such Holder, a "**Major Holder**"):

(i) as soon as practicable after the end of each fiscal year of the Company, and in any event within 120 days after the end of each fiscal year of the Company a consolidated balance sheet of the Company and its subsidiaries, if any, as at the end of such fiscal year, and consolidated statements of income and cash flows of the Company and its subsidiaries, if any, for such year, prepared in accordance with U.S. generally accepted accounting principles consistently applied, and audited and certified by independent public accountants of recognized national standing selected by the Company;

(ii) as soon as practicable after the end of the first, second and third quarterly accounting periods in each fiscal year of the Company, and in any event within 45 days after the end of the first, second, and third quarterly accounting periods in each fiscal year of the Company, an unaudited consolidated balance sheet of the Company and its subsidiaries, if any, as of the end of each such quarterly period, and unaudited consolidated statements of income and cash flows of the Company and its subsidiaries, if any, for such period, prepared in accordance with U.S. generally accepted accounting principles consistently applied, subject to changes resulting from normal year-end audit adjustments and such financial statements may not contain accompanying notes;



(iii) as soon as practicable after the each month, and in any event within 30 days after the end of each such month, an unaudited consolidated balance sheet of the Company and its subsidiaries, if any, as of the end of each such monthly period, and unaudited consolidated statements of income and cash flows of the Company and its subsidiaries, if any, for such period, prepared in accordance with U.S. generally accepted accounting principles consistently applied, subject to changes resulting from normal year-end audit adjustments and such financial statements may not contain accompanying notes;

(iv) at least 30 days prior to the beginning of each of the Company's fiscal years an annual operating plan for such fiscal year (and as soon as available, any subsequent material revisions thereto); and

(v) as soon as practicable after the end of each fiscal year, and in any event within 30 days thereafter, a report setting forth in detail all equity and debt holders of the Company as of the end of such year.

(b) **Inspection Rights**. So long as at least twenty percent (20%) of the aggregate shares of Preferred Stock issued pursuant to the Series A Purchase Agreement and Series B Purchase Agreement remain outstanding (as presently constituted and subject to subsequent adjustments for stock splits, stock dividends, reverse stock splits, and the like) are issued and outstanding, the Company shall permit each Major Holder, at such Major Holder's expense, to visit and inspect any of the properties of the Company or any of its subsidiaries during normal business hours or at such other reasonable times as may be requested, and to discuss the affairs, finances and accounts of the Company or any of its subsidiaries with its officers, and to review such information as is reasonably requested all at such reasonable times and as often as may be reasonably requested; *provided, however,* that the Company shall not be obligated under this Section 3.1(b) with respect to a competitor of the Company (as determined by the Board in good faith, but subject to Section 3.3) or with respect to information which the Board determines in good faith is highly confidential or attorney-client privileged and should not, therefore, be disclosed. Such Major Holder may exercise its rights under this Section 3.1(b) only for purposes reasonably related to their interests as stockholders of the Company, or under this Agreement and related agreements as stockholders. The rights granted pursuant to this Section 3.1(b) may not be assigned or otherwise conveyed to a Holder or by any subsequent transferee of any such rights without the prior written consent of the Company; *provided, however*, that a Holder shall be permitted to transfer rights granted pursuant to this Section 3.1(b) to Affiliates, partners, members, limited partners, retired partners, stockholders or affiliated venture capital or similar investment funds of such Major Holder, so long as such Major Holder, together with its transferees permitted under this Section 3.1(b), continue to hold a sufficient number of Shares to constitute a Major Holder hereunder (including shares held by such Major Holder's Affiliates as provided under Section 6.11).

**3.2 Confidentiality**. Each Holder agrees that such Holder will keep confidential and will not use for any purpose (other than to monitor it investment) or disclose or divulge any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement and the contents of any financial statements received), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 3.2 by such



Holder or as a result of a breach by a third party of any obligation of confidentiality such third party may have to the Company of which such Holder is aware), (b) is or has been independently developed or conceived by the Investor without use of or reference to the Company's confidential information, or (c) is or has been made known or disclosed to the Holder by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that a Holder may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company, provided such persons agree to hold such information confidentially as provided herein; (ii) to any prospective purchaser of any Registrable Securities from such Holder, if such prospective purchaser agrees to be bound by the provisions of this Section 3.2; (iii) to any existing or prospective Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Holder in the ordinary course of business, provided that such Holder informs such person or entity that such information is confidential and

directs such person or entity to maintain confidential treatment of such information; or (iv) as may otherwise be required by law, court order or an applicable governmental or regulatory body, provided that the Holder promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

**3.3** **Observer Rights**. So long as at least twenty percent (20%) of the aggregate shares of Preferred Stock issued pursuant to the Series B Purchase Agreement remain outstanding, the Company shall invite a representative designated by the holders of a majority of the outstanding Series B Preferred Stock to attend all meetings of its Board in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents and other materials that it provides to its directors; provided, however, that such representative shall agree to hold in confidence and trust and to act in a fiduciary manner with respect to all information so provided; and, provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or would result in disclosure of trade secrets to such representative or if such Investor or its representative is or is affiliated with a competitor of the Company (provided, that an Investor that is a venture capital or other investment fund shall not be deemed to be affiliated with a competitor solely as a result of its investment in other companies).

**3.4** **Right to Conduct Activities**. The Company hereby acknowledges that certain of the Investors and their Affiliates (each, a "**Fund**") are investment funds, and as such invest in numerous portfolio companies, some of which may be deemed competitive with the Company's business. Neither any Fund nor its partners, Affiliates, advisors or affiliated investment funds shall be deemed a competitor of the Company for purposes of Section 3.1(b) as a result of, or liable to the Company for any claim arising out of, or based upon, (i) the investment by such Fund or any affiliated investment fund in any entity competitive to the Company or (ii) actions taken by any partner, officer, advisor or other representative of such Fund in his, her or its capacity as such to assist any such competitive company; provided, however, that nothing herein shall relieve any Fund or any other party from liability associated with misuse of the Company's confidential information as set forth in Section 3.2 above.



**3.5** **Termination of Covenants**. The covenants set forth in Section 3.1 shall not apply to and shall terminate and be of no further force and effect after the earlier of (a) the Initial Public Offering or (b) the occurrence of a Liquidation Event.

**4.** **Right of First Refusal**.

**4.1** **Holders Rights**. Subject to the provisions of Section 4.2 through 4.5 below, the Company hereby grants to each Major Holder who is an "accredited investor" within the meaning of applicable securities laws and regulations (a "**ROFR Holder**"), the right of first refusal to purchase its Pro Rata Amount (as defined below) of New Securities which the Company may, from time to time, propose to sell and issue after the date of this Agreement. A ROFR Holder's "**Pro Rata Amount**", for purposes of this right of first refusal, is equal to the ratio of (a) the number of shares of Common Stock (except for Common Stock originally issued as Common Stock which were not issued upon conversion of Preferred Stock) and Preferred Stock and all other shares of any other convertible securities, rights, options or warrants held by such ROFR Holder ("**ROFR Shares**"), on an as exercised and as converted to Common Stock basis, to (b) the total of all outstanding shares of Common Stock, all outstanding shares of Preferred Stock and all other shares of other convertible securities, rights, options or warrants then outstanding, on an as exercised and as converted to Common Stock basis, and all shares of Common Stock held in reserve in any of the Company's equity incentive plans that are not then yet allocated for outstanding and unexercised stock options.

**4.2** **New Securities**. As used herein, "**New Securities**" shall mean any capital stock (including Common Stock and/or Preferred Stock) of the Company whether now authorized or not, and rights, convertible securities, options or warrants to purchase such capital stock, and securities of any type whatsoever that are, or may become, exercisable or convertible into capital stock; *provided* that the term "**New Securities**" does not include (i) any securities that are not deemed to be "Additional Stock" pursuant to Article IV, Section B.4(d)(ii) of the Restated Certificate or (ii) any shares of Series B Preferred Stock issued pursuant to the Series B Purchase Agreement (although nothing set forth herein shall alter the rights and obligations of the Investors to purchase shares of Series B Preferred Stock pursuant to the Series B Purchase Agreement).

**4.3** **Notice**. In the event the Company proposes to undertake an issuance of New Securities, it shall give each ROFR Holder written notice of its intention, describing the type of New Securities, and their price and the general terms upon which the Company proposes to issue the same. Each ROFR Holder shall have 15 days after any such notice is mailed or delivered to agree to purchase such ROFR Holder's Pro Rata Amount (or such lesser amount as desired) of such New Securities for the price and upon the terms specified in the notice by giving written notice to the Company and stating therein the quantity of New Securities to be purchased, if any.

**4.4** **Election Period and Excess Securities**. In the event the foregoing right of first refusal is not exercised in full by all of the ROFR Holders within the 15 day period described in Section 4.3 above (the "**Election Period**"), the Company shall promptly notify in writing the ROFR Holders who have elected to exercise their right of first refusal with respect to their full Pro Rata Amount and shall offer such ROFR Holders the right to acquire such unsubscribed New



Securities. Each ROFR Holder shall have 10 days after receipt of such notice to notify the Company of its election to purchase all or a portion thereof of its pro rata portion of the unsubscribed New Securities, indicate whether it intends to purchase unsubscribed New Securities in excess of its pro rata share ("**Excess Securities**") and, if so, the number of such unsubscribed New Securities it wishes to purchase. The Excess Securities, if any, shall be allocated to participating ROFR Holders in a manner most consistent with the pro rata shares of such participating ROFR Holders as determined in good faith by the Board. If the ROFR Holders fail to exercise in full the rights of first refusal, the Company shall have 45 days thereafter to sell or enter into an agreement (pursuant to which the sale of New Securities covered thereby shall be closed, if at all, within 20 days from the date of said agreement) to sell that portion of the New Securities with respect to which the ROFR Holders' right of first refusal option set forth in this Section 4 was not exercised, at a price and upon terms no more favorable to the purchasers thereof than specified in the Company's notice to ROFR Holders delivered pursuant to Section 4.3. In the event the Company enters into an agreement to sell such New Securities within such 45 day period following the Election Period, or sells such New Securities within such 20 day period following the date of said agreement, the Company shall not thereafter issue or sell any New Securities, without first again offering such securities to the ROFR Holders in the manner provided in this Section 4.

**4.5** **Waiver, Expiration, Transfer**. The rights of first refusal granted under this Section 4, including notice with respect thereto, may be waived as to all ROFR Holders with the written consent of the Preferred Majority. The rights of first refusal granted under this Section 4.1 shall expire immediately prior to the earlier of (i) the Initial Public Offering and (ii) the closing of a Liquidation Event. The rights of first refusal of a ROFR Holder under this Section 4 may be transferred subject to the same restrictions as any transfer of registration rights pursuant to Section 2.12. Notwithstanding anything else set forth above, a Holder shall be permitted to transfer rights granted pursuant to this Section 4 in any amount to its Affiliates.

**5. Other Company Covenants.**

**5.1** **Proprietary Information and Inventions Agreements**. The Company shall require all employees and consultants with access to confidential information to execute and deliver a nondisclosure and proprietary rights assignment agreement (in the case of employees, in substantially the form approved by Board).

**5.2** **Equity Agreements**. Unless approved by the Board, including the approval of a majority of the Preferred Directors, as defined in the Restated Certificate, all future employees of the Company who shall purchase, or receive options to purchase, shares of Common Stock following the date hereof shall be required to execute stock purchase or option agreements providing for: (a) vesting of shares over a four (4) year period with the first twenty five percent (25%) of such shares vesting following twelve (12) months of continued employment or services, and the remaining shares vesting in equal monthly installments over the following thirty six (36) months thereafter; and, (b) such employee's equity grant vesting commencement date be no sooner than such employee's employment start date. Unless approved by the Board, all such stock purchase agreements and option agreements shall also include (i) a one hundred and eighty (180)-day lockup period (plus an additional period of up to thirty-four (34) days) in connection with the Initial Public Offering; (ii) the Company retaining a right of first refusal on transfers



until the Initial Public Offering; (iii) the Company retaining a right to repurchase any unvested shares at their cost upon termination of employment; and (iv) a prohibition on the transfer of shares that have not yet vested.

**5.3** **Termination of Covenants**. The covenants set forth in Sections 5.1, 5.2 and 5.3 shall terminate and be of no further force or effect upon the consummation of the earlier to occur of (a) an Initial Public Offering or (b) a Liquidation Event.

**6. Miscellaneous.**

**6.1** **Successors and Assigns**. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

**6.2** **Governing Law**. This Agreement will be construed and enforced in accordance with the substantive laws of the State of California without reference to principles of conflicts of law. EACH PARTY HERETO HEREBY IRREVOCABLY SUBMITS TO THE EXCLUSIVE JURISDICTION OF ANY STATE OR FEDERAL COURT SITTING IN CALIFORNIA, IN ANY PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT AND TO THE RESPECTIVE COURT TO WHICH AN APPEAL OF THE DECISIONS OF ANY SUCH COURT MAY BE TAKEN, AND EACH PARTY AGREES NOT TO COMMENCE, OR COOPERATE IN OR ENCOURAGE THE COMMENCEMENT OF, ANY SUCH PROCEEDING, EXCEPT IN PROCEEDING WILL BE CONCLUSIVE AND MAY BE ENFORCED IN ANY JURISDICTION BY SUIT IN SUCH A COURT. EACH PARTY HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT IT MAY DO SO, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE THEREIN OF SUCH A PROCEEDING.

**6.3** **Counterparts**. This Agreement may be executed in any number of counterparts and signatures may be delivered by facsimile, each of which may be executed by less than all parties, each of which shall be enforceable against the parties actually executing such counterparts, and all of which together shall constitute one instrument.

**6.4** **Titles and Subtitles**. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

**6.5** **Notices**. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed facsimile if sent during normal business hours of the recipient, if not, then on the next business day, (c) five (5) U.S. business days after having been sent to a U.S. address by registered or certified mail, return receipt requested, postage prepaid, (d) two (2) business days after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery in the United States, with written verification of receipt or (e) three (3) business days after deposit with an internationally recognized overnight courier or expedited delivery services company, specifying next available business day delivery outside of the United



States, with written identification of receipt; provided, however, that notice and other communication given or made to Roche shall only be provided using the methods set forth in clauses (a), (b) and (e) above. All communications shall be sent (a) if to an Investor, at such Investor's address set forth on Exhibit A, or at such other address or contact information as the Investor may designate by ten (10) days' advance written notice to the Company, or (b) if to the Company, at its address set forth on the signature page of this Agreement addressed to the attention of the Corporate Secretary or at such other address or contact information as the Company may designate by ten (10) days' advance written notice to the Investors. All notices shall also be accompanied by e-mail delivery to those parties whose e-mail addresses appear on Exhibit A, which e-mail delivery shall not constitute notice for purposes of this Section 6.5.

**6.6** **Amendments and Waivers**. Except as expressly provided herein, any term of this Agreement may be amended, terminated or waived only with the written consent of (a) the Company and (b) the Preferred Majority; and *provided, further,* that no amendment, termination or waiver of any term under this Agreement shall adversely affect any Investor or group of Investors in an adverse manner that is disproportionate to its holdings of stock relative to the other Investors of the same class or series unless such amendment, termination or waiver is agreed to in writing by a majority in interest of the

disproportionately affected Investor(s); and *provided, further,* no amendment of or waiver to Section 2.6(b) or Section 2.6(d) shall be made that has not been approved with the written consent of each Investor to the extent that such Investor's respective rights under such Section 2.6(b) or Section 2.6(d) are impaired; and *provided, further,* no amendment of or waiver to this Section 6.6 shall be made, other than in connection with the issuance of Capital Stock (as defined below), that has not been approved with the written consent of each Major Holder to the extent that such Major Holder's respective rights under this Section 6.6 are impaired and the rights of other Investors of the same class or series are not so adversely affected. For the avoidance of doubt, the addition to this Agreement of any new holder of shares of capital stock of the Company ("**Capital Stock**") pursuant to the Company's issuance of such other Capital Stock regardless of whether such Capital Stock has rights, preferences or privileges that are junior, *pari passu* or senior to the Capital Stock then held by then current Investors as long as such other or additional shares of Capital Stock have been authorized and issued in accordance with the Company's then current Restated Certificate and applicable law, and as long as the addition of such new holder of Capital Stock of the Company (or inclusion of such new shares of Capital Stock) has been approved as may be required pursuant to Section 2.13 above, shall not, in and of itself, be deemed to constitute an amendment or waiver that adversely affects one Investor in a manner that is disproportionate to any other Investor. Any amendment or waiver effected in accordance with this Section 6.6 shall be binding upon the Holders and each transferee of the Shares (or the Common Stock issuable upon conversion thereof), each future holder of all such securities, and the Company. Each Holder acknowledges that by the operation of this Section and subject to the restrictions set forth above, the Preferred Majority will have the right and power to diminish or eliminate all rights of such Holder under this Agreement. The Company shall give prompt notice of any amendment waiver hereunder to any party hereto that did not consent in writing to such amendment or waiver.

**6.7** **Severability**. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be held to be prohibited by or invalid under applicable law, such



provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement.

**6.8** **Delays or Omissions**. No delay or omission to exercise any right, power or remedy accruing to any party upon any breach or default of any other party under this Agreement shall impair any such right, power or remedy of such party, nor shall it be construed to be a waiver of any such breach or default or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing or as provided in this Agreement. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

**6.9** **Entire Agreement**. This Agreement (including the Exhibits hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof and thereof, and supersedes all other agreements of the parties relating to the subject matter hereof and thereof, and supersedes in its entirety the Prior Agreement, which shall have no further force and effect.

**6.10** **Further Assurances**. At any time or from time to time after the date hereof, the parties hereto agree to cooperate with each other, and at the request of any such party hereto, to execute and deliver any further instruments or documents and to take all such further action as the other party may reasonably request in order to evidence or effectuate the consummation of the transactions contemplated hereby and to otherwise carry out the intent of the parties hereunder.

**6.11** **Aggregation of Stock**. All shares of Company equity held or acquired by a Holder and/or its Affiliates shall be aggregated together for the purpose of determining the availability of any rights and any obligations under this Agreement, and such affiliated persons may apportion such rights and obligations as among themselves in any manner they deem appropriate.

**6.12** **Additional Investors**. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of Series B Preferred Stock after the date hereof, any purchaser of such shares of Series B Preferred Stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and thereafter shall be deemed an "Investor" for all purposes hereunder and the addition of such purchasers shall not be deemed to be an amendment requiring the consent of any party hereto pursuant to Section 6.

**6.13** **WAIVER OF JURY TRIAL**. EACH PARTY HERETO AND ANY OTHER PERSON CLAIMING ANY RIGHTS HEREUNDER, HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE ACTIONS OF ANY PARTY HERETO IN



THE NEGOTIATION, ADMINISTRATION, PERFORMANCE AND ENFORCEMENT HEREOF. If the waiver of jury trial set forth in this section is not enforceable, then any claim or cause of action arising out of or relating to this Agreement shall be settled by judicial reference pursuant to California Code of Civil Procedure Section 638 et seq. before a referee sitting without a jury, such referee to be mutually acceptable to the parties or, if no agreement is reached, by a referee appointed by the Presiding Judge of the California Superior Court for Santa Clara County. This paragraph shall not restrict a party from exercising remedies under the Uniform Commercial Code or from exercising pre-judgment remedies under applicable law.

*[THIS SPACE LEFT BLANK INTENTIONALLY]*



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**COMPANY:**

**CORVUS PHARMACEUTICALS, INC.**

By: /s/ Richard A. Miller
Richard A. Miller
Chief Executive Officer and President

Address:
863 Mitten Road
Suite 102
Burlingame, CA 94010
Attn: Chief Executive Officer and President
E-mail: [***]



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**ADAMS STREET 2011 DIRECT FUND LP**

By: ASP 2011 Direct Management LP its General Partner
By: ASP 2011 Direct Management LLC its General Partner
By:: Adams Street Partners, LLC its Managing Member

By: /s/ Elisha (Terry) P. Gould III
Name: Elisha (Terry) P. Gould III
Title: Partner



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**ADAMS STREET 2012 DIRECT FUND LP**

By: ASP 2012 Direct Management LP its General Partner
By: ASP 2012 Direct Management LLC its General Partner
By:: Adams Street Partners, LLC its Managing Member

By: /s/ Elisha (Terry) P. Gould III
Name: Elisha (Terry) P. Gould III
Title: Partner



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**ADAMS STREET 2013 DIRECT FUND LP**

By: ASP 2013 Direct Management LP its General Partner
By: ASP 2013 Direct Management LLC its General Partner
By:: Adams Street Partners, LLC its Managing Member

By: /s/ Elisha (Terry) P. Gould III

Name: Elisha (Terry) P. Gould III
Title: Partner



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**ADAMS STREET 2014 DIRECT FUND LP**

By: ASP 2014 Direct Management LP its General Partner
By: ASP 2014 Direct Management LLC its General Partner
By:: Adams Street Partners, LLC its Managing Member

By: /s/ Elisha (Terry) P. Gould III
Name: Elisha (Terry) P. Gould III
Title: Partner



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**BLACKROCK HEALTH SCIENCES TRUST**

By: BlackRock Advisors, LLC
Its: Investment Adviser

By: /s/ Hongying Xie
Authorized Signatory



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**BLACKROCK HEALTH SCIENCES OPPORTUNITIES PORTFOLIO, a series of BlackRock Funds**

By: BlackRock Advisors, LLC
Its: Investment Adviser

By: /s/ Hongying Xie
Authorized Signatory



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**BLACKROCK HEALTH SCIENCES MASTER UNIT TRUST**

By: BlackRock Capital Management, Inc.

Its: Investment Adviser

By: /s/ Hongying Xie
Authorized Signatory



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**CORMORANT GLOBAL HEALTHCARE MASTER FUND, LP**

By: /s/ Bihua Chen
Bihua Chen
Managing Member of the General Partner



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**COWEN PRIVATE INVESTMENTS LP**

By: Cowen Private Investments GP LLC
Its: General Partner

By: /s/ Owen Littman
Name: Owen Littman
Title: Authorized Signatory



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**FIDELITY SELECT PORTFOLIOS: BIOTECHNOLOGY PORTFOLIO**

By: /s/ Stacie M. Smith
Name: Stacie M. Smith
Title: Deputy Treasurer



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**FIDELITY ADVISOR SERIES VII: FIDELITY ADVISOR BIOTECHNOLOGY FUND**

By: /s/ Stacie M. Smith

Name: Stacie M. Smith
Title: Deputy Treasurer



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**FIDELITY SECURITIES FUND: FIDELITY BLUE CHIP GROWTH FUND**

By: /s/ Stacie M. Smith
Name: Stacie M. Smith
Title: Deputy Treasurer



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**PYRAMIS LIFECYCLE BLUE CHIP GROWTH COMMINGLED POOL**

By: Pyramis Global Advisors Trust Company, as Trustee

By: /s/ Douglas Payne
Name: Douglas Payne
Title: V.P. Treasury



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**FIDELITY BLUE CHIP GROWTH COMMINGLED POOL**

By: Fidelity Management & Trust Co.

By: /s/ Stacie M. Smith
Name: Stacie M. Smith
Title: Authorized Signatory



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**JENNISON GLOBAL HEALTHCARE MASTER FUND, LTD.**

By: Jennison Associates LLC, as the Investment Manager of Jennison Global Healthcare Master Fund, Ltd.

By: /s/ David Chan
David Chan, Managing Director of Jennison Associates LLC



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**NOVO A/S**

By: /s/ Jack B. Nielsen
Name: Jack B. Nielsen
Title: Novo A/S
Partner
Novo Ventures
Tuborg Havnevej 19
DK-2900 Hellerup



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**ORBIMED PRIVATE INVESTMENTS V, L.P.**

By: OrbiMed Capital GP V LLC, its General Partner
By: OrbiMed Advisors LLC, its Managing Member

By: /s/ Carl Gordon
Name: Carl Gordon
Title: Member



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**ROCHE FINANCE LTD**

By: /s/ Urs Jaisli
Name: Urs Jaisli
Title: authorized signatory

By: /s/ Beat Krähenmann
Name: Beat Krähenmann
Title: authorized signatory



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**ROCK SPRINGS CAPITAL MASTER FUND LP**

By: Rock Springs GP LLC
Its: General Partner

By: /s/ Graham McPhail
Graham McPhail, Managing Director



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**SPHERA GLOBAL HEALTHCARE MASTER FUND**

By: /s/ Doron Breen
Name: Doron Breen
Title: Director



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**T. ROWE PRICE HEALTH SCIENCES FUND, INC.**
**TD MUTUAL FUNDS – TD HEALTH SCIENCES FUND**
**VALIC COMPANY I – HEALTH SCIENCES FUND**
**T. ROWE PRICE HEALTH SCIENCES PORTFOLIO**
**JOHN HANCOCK VARIABLE INSURANCE TRUST – HEALTH SCIENCES TRUST**
**JOHN HANCOCK FUNDS II – HEALTH SCIENCES FUND**
Each fund, severally and not jointly

By: T. Rowe Price Associates, Inc., Investment Adviser or Subadviser, as applicable

By: /s/ Taymour Tamaddon
Name: Taymour Tamaddon
Title: Vice President



---

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**VENBIO SELECT FUND LLC**

By: /s/ Behzad Aghazadeh
Name: Behzad Aghazadeh
Title: Portfolio Manager

**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

/s/ Judith A. Hasko
**Judith A. Hasko**



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

/s/ Michael J. Miller
**Michael J. Miller**



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**MILLER-HORNING FAMILY TRUST UAD JAN 1985, RICHARD A. MILLER AND SANDRA J. HORNING TTEES**

By: /s/ Richard A. Miller
Richard A. Miller, Trustee

By: /s/ Sandra Horning
Sandra J. Horning, Trustee



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**THE ALAN C. & AGNÈS B. MENDELSON FAMILY TRUST**

By: /s/ Alan C. Mendelson
Alan C. Mendelson, Trustee



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

**VP COMPANY INVESTMENTS 2008, LLC**

By: /s/ Alan C. Mendelson
Alan C. Mendelson



**IN WITNESS WHEREOF,** the Parties have executed this Amended and Restated Investors' Rights Agreement as of the Effective Date.

**INVESTORS:**

/s/ Kathleen Wells
**Kathleen M. Wells**



**EXHIBIT A**

**SCHEDULE OF INVESTORS**

Adams Street 2011 Direct Fund LP
c/o Adams Street Partners, LLC
ATTN: Sejal Shah
One North Wacker Drive
Suite 2200
Chicago, IL 60606-2823
e-mail: [***]

Adams Street 2012 Direct Fund LP
c/o Adams Street Partners, LLC
ATTN: Sejal Shah
One North Wacker Drive
Suite 2200
Chicago, IL 60606-2823
e-mail: [***]

Adams Street 2013 Direct Fund LP
c/o Adams Street Partners, LLC
ATTN: Sejal Shah
One North Wacker Drive
Suite 2200
Chicago, IL 60606-2823
e-mail: [***]

Adams Street 2014 Direct Fund LP
c/o Adams Street Partners, LLC
ATTN: Sejal Shah
One North Wacker Drive
Suite 2200
Chicago, IL 60606-2823
e-mail: [***]



BlackRock Health Sciences Trust
c/o BlackRock Advisors, LLC
Fundamental Equity — Global Opportunities Health & Sciences Team
ATTN: Erin Xie
60 State Street
19th/20th Floors
Boston, MA 02109
e-mail: [***]

with a copy (which shall not constitute notice) to:
BlackRock, Inc.
Office of the General Counsel
ATTN: David Maryles and Joe Roy
40 East 52nd Street
New York, NY 10022
e-mail: [***]

BlackRock BlackRock Health Sciences Opportunities Portfolio, a series of BlackRock Funds
c/o BlackRock Advisors, LLC
Fundamental Equity — Global Opportunities Health & Sciences Team
ATTN: Erin Xie
60 State Street
19th/20th Floors
Boston, MA 02109
e-mail: [***]

with a copy (which shall not constitute notice) to:
BlackRock, Inc.
Office of the General Counsel
ATTN: David Maryles and Joe Roy
40 East 52nd Street
New York, NY 10022
e-mail: [***]



BlackRock Health Sciences Master Unit Trust
c/o BlackRock Advisors, LLC
Fundamental Equity — Global Opportunities Health & Sciences Team
ATTN: Erin Xie
60 State Street
19th/20th Floors
Boston, MA 02109
e-mail: [***]

with a copy (which shall not constitute notice) to:
BlackRock, Inc.
Office of the General Counsel
ATTN: David Maryles and Joe Roy
40 East 52nd Street
New York, NY 10022
e-mail: [***]

Cormorant Global Healthcare Master Fund, LP
200 Clarendon Street
Boston, MA 02116
e-mail: [***]

Cowen Private Investments LP
ATTN: Tim Anderson
599 Lexington Avenue
New York, NY 10022
e-mail: [***]

CRMA SPV, L.P.
PO Box 309
Ugland House
Grand Cayman
KY1-1104
Cayman Islands
e-mail: [***]

Fidelity Select Portfolios: Biotechnology Portfolio
ATTN: Michael Lerman - 15th Floor / Corporate Actions
Brown Brothers Harriman & Co.
525 Washington Boulevard
Jersey City, NJ 07310
e-mail: [***]

Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund
ATTN: Bangle & Co fbo Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund State Street Bank & Trust
Post Officed Box 5756
Boston, MA 02206
e-mail: [***]

Fidelity Securities Fund: Fidelity Blue Chip Growth Fund
M.Gardiner & Co
c/o JPMorgan Chase Bank, N.A
Post Office Box 35308
Newark, NJ 07101-8006
e-mail: [***]
e-mail: [***]

Pyramis Lifecycle Blue Chip Growth Commingled Pool
State Street Bank & Trust
ATTN: FLAPPER CO fbo Pyramis Lifecycle Blue Chip Growth Commingled Pool
Post Office Box 5756
Boston, MA 02206
e-mail: [***]

Fidelity Blue Chip Growth Commingled Pool
ATTN: Michael Lerman - 15th Floor / Corporate Actions
Brown Brothers Harriman & Co.
525 Washington Boulevard
Jersey City, NJ 07310
e-mail: [***]

Jennison Global Healthcare Master Fund, Ltd.
c.o Jennison Associates LLC
ATTN: Legal Department
466 Lexinbton Avenue
New York, NY 10017
e-mail: [***]
e-mail: [***]
e-mail: [***]

Novo A/S
ATTN: Heather Ludvigsen
Tuborg Havnevej 19
DK 2900 Hellerup
Denmark
e mail: [***] and [***]



---

OrbiMed Private Investments V, L.P.
601 Lexington Avenue
(at 53rd Street)
54th Floor
New York, NY 10022-4629
e-mail: [***]

Roche Finance Ltd
ATTN: Roche Venture Fund / Carole Nuechterlein
Grenzacherstrasse 122
4070 Basel, Switzerland

With a copy to:
Hoffmann-La Roche Inc.
ATTN: General Counsel
Overlook at Great Notch
150 Clove Road
8th Floor — Suite 8
Little Falls, NJ 07424
e-mail: [***]

Rock Springs Capital Master Fund LP
ATTN: Alexandra Fulk, General Counsel
650 South Exeter Street
Suite 1070
Baltimore, MD 21202
e-mail: [***]

With a copy to:
Morrison & Foerster LLP
ATTN: James Tanenbaum, Esq.
250 West 55th Street
New York, NY 10019

Sphera Global Healthcare Master Fund
c/o Sphera Funds Management
21 Ha'arbaa Street
Tel Aviv, Israel
e-mail: [***]



T. Rowe Price Health Sciences Fund, Inc.
T. Rowe Price Associates, Inc.
ATTN: Andrew Baek, Vice President and Senior Legal Counsel
100 East Pratt Street
Baltimore, MD 21202
e-mail: [***]

TD Mutual Funds — TD Health Sciences Fund
T. Rowe Price Associates, Inc.
ATTN: Andrew Baek, Vice President and Senior Legal Counsel
100 East Pratt Street
Baltimore, MD 21202
e-mail: [***]

Valic Company I — Health Sciences Fund
T. Rowe Price Associates, Inc.
ATTN: Andrew Baek, Vice President and Senior Legal Counsel
100 East Pratt Street
Baltimore, MD 21202
e-mail: [***]

T. Rowe Price Health Sciences Portfolio
T. Rowe Price Associates, Inc.
ATTN: Andrew Baek, Vice President and Senior Legal Counsel
100 East Pratt Street
Baltimore, MD 21202
e-mail: [***]

John Hancock Variable Insurance Trust — Health Sciences Trust
T. Rowe Price Associates, Inc.
ATTN: Andrew Baek, Vice President and Senior Legal Counsel
100 East Pratt Street
Baltimore, MD 21202
e-mail: [***]

John Hancock Funds II — Health Sciences Fund
T. Rowe Price Associates, Inc.
ATTN: Andrew Baek, Vice President and Senior Legal Counsel
100 East Pratt Street
Baltimore, MD 21202
e-mail: [***]



venBio Select Fund LLC
ATTN: Mr. Scott Epstein
120 West 45th Street
Suite 2802
New York, NY 10036
e-mail: [***]

Buggy/Cooper Living Trust dated June 25, 2014,
Joseph J. Buggy and Anne E. Cooper, Trustees
[***]
[***]
e-mail: [***]

Karlson Lea Family Trust dated February 11, 1998,
Leiv Lea and Deborah Karlson TTEES
[***]
[***]
e-mail: [***]

Loury Family Trust dated September 16, 2000,
David J. Loury and Dana N. Loury,
Trustees of the Loury Family Trust
[***]
[***]
e-mail: [***]

Judith A. Hasko
[***]
[***]
e-mail: [***]

Michael J. Miller
[***]
[***]
e-mail: [***]

Miller-Horning Family Trust UAD Jan 1985,
Richard A. Miller and Sandra J. Horning TTEES
[***]
[***]
e-mail: [***]



The Alan C. & Agnès B. Mendelson Family Trust
[***]
[***]
e-mail: [***]

VP Company Investments 2008, LLC
c/o Latham & Watkins LLP
555 West Fifth Street
Suite 800
Los Angeles, CA 90013-1010
e-mail: [***]

Kathleen M. Wells
[***]
[***]
e-mail: [***]

**CORVUS PHARMACEUTICALS, INC.**
**2016 EQUITY INCENTIVE AWARD PLAN**

## ARTICLE 1.

## PURPOSE

The purpose of the Corvus Pharmaceuticals, Inc. 2016 Equity Incentive Award Plan (as it may be amended from time to time, the "Plan") is to promote the success and enhance the value of Corvus Pharmaceuticals, Inc. (the "Company") by linking the individual interests of Directors, Employees and Consultants to those of the Company's stockholders and by providing such individuals with an incentive for outstanding performance to generate superior returns to the Company's stockholders. The Plan is further intended to provide flexibility to the Company in its ability to motivate, attract, and retain the services of Directors, Employees and Consultants upon whose judgment, interest, and special effort the successful conduct of the Company's operation is largely dependent.

## ARTICLE 2.

## DEFINITIONS AND CONSTRUCTION

Wherever the following terms are used in the Plan they shall have the meanings specified below, unless the context clearly indicates otherwise. The singular pronoun shall include the plural where the context so indicates.

2.1 "Administrator" shall mean the entity that conducts the general administration of the Plan as provided in Article 13 hereof. With reference to the duties of the Administrator under the Plan which have been delegated to one or more persons pursuant to Section 13.6 hereof, or as to which the Board has assumed, the term "Administrator" shall refer to such person(s) unless the Committee or the Board has revoked such delegation or the Board has terminated the assumption of such duties.

2.2 "Affiliate" shall mean any Parent or Subsidiary.

2.3 "Applicable Accounting Standards" shall mean Generally Accepted Accounting Principles in the United States, International Financial Reporting Standards or such other accounting principles or standards as may apply to the Company's financial statements under United States federal securities laws from time to time.

2.4 "Applicable Law" shall mean any applicable law, including without limitation, (i) provisions of the Code, the Securities Act, the Exchange Act and any rules or regulations thereunder; (ii) corporate, securities, tax or other laws, statutes, rules, requirements or regulations, whether federal, state, local or foreign; and (iii) rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded.

2.5 "Award" shall mean an Option, a Restricted Stock award, a Restricted Stock Unit award, a Performance Award, a Dividend Equivalent award, a Deferred Stock award, a

---

Deferred Stock Unit award, a Stock Payment award or a Stock Appreciation Right, in any case, which may be awarded or granted under the Plan.

2.6 "Award Agreement" shall mean any written notice, agreement, terms and conditions, contract or other instrument or document evidencing an Award, including through electronic medium, which shall contain such terms and conditions with respect to an Award as the Administrator shall determine consistent with the Plan.

2.7 "Board" shall mean the Board of Directors of the Company.

2.8 "Cause," with respect to a Holder, shall mean "Cause" (or any term of similar effect) as defined in such Holder's applicable Award Agreement or written employment or other agreement between a Holder and the Company or, if no such agreement exists or such agreement does not contain a definition of "Cause" (or term of similar effect), then "Cause" shall mean the occurrence of any of the following events: (i) the Holder's gross negligence or willful misconduct in the performance of the duties and services with the Company, or breach of fiduciary duty involving personal profit; (ii) the Holder's conviction of, or plea of guilty or *nolo contendere* to, a felony or crime involving moral turpitude (or any similar crime in any jurisdiction outside the United States); (iii) the Holder's failure to satisfactorily perform the duties and responsibilities required of the Holder or as lawfully directed by the Company; (iv) the Holder's breach of any employment confidentiality , intellectual property, non-disclosure, non-competition or other agreement with the Company, as may be amended from time to time; (v) the Holder's material breach of a corporate code or policy, as such code or policy may be adopted from time to time; (vi) any act of fraud, embezzlement, material misappropriation or dishonesty committed by the Holder against the Company; or (vii) any acts, omissions or statements by the Holder which the Company determines to be materially detrimental or damaging to the reputation, operations, prospects or business relations of the Company. The determination by the Company that a Holder's Termination of Service is either for Cause or without Cause shall be made by the Company in its sole discretion. Any determination by the Company that a Holder experienced a Termination of Service by reason of dismissal without Cause for the purposes of outstanding Awards held by such Holder shall have no effect upon any determination of the rights or obligations of the Company or such Holder for any other purpose.

2.9 "Change in Control" shall mean the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission) whereby any "person" or related "group" of "persons" (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) (other than the Company, any of its Subsidiaries, an employee benefit plan maintained by the Company or any of its Subsidiaries or a "person" that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company)

directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities of the Company possessing more than fifty percent (50%) of the total combined voting power of the Company's securities outstanding immediately after such acquisition; or



(b) During any period of two (2) consecutive years, individuals who, at the beginning of such period, constitute the Board together with any new Director(s) (other than a Director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in Section 2.9(a) or 2.9(c)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the Directors then still in office who either were Directors at the beginning of the two (2)-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination or (y) a sale or other disposition of all or substantially all of the Company's assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) which results in the Company's voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company's assets or otherwise succeeds to the business of the Company (the Company or such person, the "Successor Entity")) directly or indirectly, at least a majority of the combined voting power of the Successor Entity's outstanding voting securities immediately after the transaction, and

(ii) after which no person or group beneficially owns voting securities representing fifty percent (50%) or more of the combined voting power of the Successor Entity; provided, however, that no person or group shall be treated for purposes of this Section 2.9(c)(ii) as beneficially owning fifty percent (50%) or more of the combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction; or

(d) The Company's stockholders approve a liquidation or dissolution of the Company.

Notwithstanding the foregoing, if a Change in Control constitutes a payment event or a toggle event with respect to any Award (or portion thereof) that provides for the deferral of compensation and is subject to Section 409A of the Code, to the extent required to avoid the imposition of additional taxes under Section 409A of the Code, the transaction or event described in subsection (a), (b), (c) or (d) with respect to such Award (or portion thereof) shall only constitute a Change in Control for purposes of the payment timing of such Award if such transaction also constitutes a "change in control event," as defined in Treasury Regulation Section 1.409A-3(i)(5) to the extent required by Section 409A of the Code.

The Committee shall have full and final authority, which shall be exercised in its sole discretion, to determine conclusively whether a Change in Control of the Company has occurred pursuant to the above definition, and the date of the occurrence of such Change in Control and any incidental



matters relating thereto; provided that any exercise of authority in conjunction with a determination of whether a Change in Control is a "change in control event" as defined in Treasury Regulation Section 1.409A-3(i)(5) shall be consistent with such regulation.

2.10 "Code" shall mean the Internal Revenue Code of 1986, as amended from time to time, together with the regulations and official guidance promulgated thereunder.

2.11 "Committee" shall mean the Compensation Committee of the Board, a subcommittee of the Compensation Committee of the Board or another committee or subcommittee of the Board, appointed as provided in Section 13.1 hereof.

2.12 "Common Stock" shall mean the common stock of the Company, par value $0.0001 per share.

2.13 "Company" shall have the meaning set forth in Article 1 hereof.

2.14 "Consultant" shall mean any consultant or advisor engaged to provide services to the Company or any Affiliate who qualifies as a consultant or advisor under the applicable rules of the Securities and Exchange Commission for registration of shares on a Form S-8 Registration Statement or any successor Form thereto or, prior to the Public Trading Date, under Rule 701 of the Securities Act.

2.15 "Covered Employee" shall mean any Employee who is, or could be, a "covered employee" within the meaning of Section 162(m) of the Code.

2.16 "Deferred Stock" shall mean a right to receive Shares awarded under Section 10.4 hereof.

2.17 "Deferred Stock Unit" shall mean a right to receive Shares awarded under Section 10.5 hereof.

2.18 "Director" shall mean a member of the Board, as constituted from time to time.

2.19 "Dividend Equivalent" shall mean a right to receive the equivalent value (in cash or Shares) of dividends paid on Shares, awarded under Section 10.2 hereof.

2.20 "DRO" shall mean a "domestic relations order" as defined by the Code or Title I of the Employee Retirement Income Security Act of 1974, as amended from time to time, or the rules thereunder.

2.21 "Effective Date" shall mean immediately prior to the consummation of the Company's initial public offering pursuant to its registration statement on Form S-1 filed January 4, 2016, provided that the Board has adopted the Plan prior to or on such date, subject to approval of the Plan by the Company's stockholders.

2.22 "Eligible Individual" shall mean any person who is an Employee, a Consultant or a Non-Employee Director, as determined by the Administrator.



2.23 "Employee" shall mean any officer or other employee (as determined in accordance with Section 3401(c) of the Code and the Treasury Regulations thereunder) of the Company or any Affiliate.

2.24 "Equity Restructuring" shall mean a nonreciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split, spin-off, rights offering or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of Shares (or other securities of the Company) or the share price of Common Stock (or other securities) and causes a change in the per share value of the Common Stock underlying outstanding stock-based Awards.

2.25 "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended from time to time.

2.26 "Fair Market Value" shall mean, as of any given date, the value of a Share determined as follows:

(a) If the Common Stock is (i) listed on any established securities exchange (such as the New York Stock Exchange, the NASDAQ Global Market and the NASDAQ Global Select Market), (ii) listed on any national market system or (iii) listed, quoted or traded on any automated quotation system, its Fair Market Value shall be the closing sales price for a Share as quoted on such exchange or system for such date or, if there is no closing sales price for a Share on the date in question, the closing sales price for a Share on the last preceding date for which such quotation exists, as reported in The Wall Street Journal or such other source as the Administrator deems reliable;

(b) If the Common Stock is not listed on an established securities exchange, national market system or automated quotation system, but the Common Stock is regularly quoted by a recognized securities dealer, its Fair Market Value shall be the mean of the high bid and low asked prices for such date or, if there are no high bid and low asked prices for a Share on such date, the high bid and low asked prices for a Share on the last preceding date for which such information exists, as reported in The Wall Street Journal or such other source as the Administrator deems reliable; or

(c) If the Common Stock is neither listed on an established securities exchange, national market system or automated quotation system nor regularly quoted by a recognized securities dealer, its Fair Market Value shall be established by the Administrator in good faith.

Notwithstanding the foregoing, with respect to any Award granted after the effectiveness of the Company's registration statement relating to its initial public offering and prior to the Public Trading Date, the Fair Market Value shall mean the initial public offering price of a Share as set forth in the Company's final prospectus relating to its initial public offering filed with the Securities and Exchange Commission.

2.27 "Good Reason," with respect to a Holder, shall mean "Good Reason" (or any term of similar effect) as defined in such Holder's applicable Award Agreement or written employment or other agreement between a Holder and the Company or, if no such agreement



exists or such agreement does not contain a definition of "Good Reason" (or term of similar effect), then "Good Reason" shall mean, without the Holder's prior written consent, (I) a material reduction of the Holder's base salary; *provided*, *however*, that a material reduction in the Holder's base salary pursuant to a salary reduction program affecting all or substantially all of the employees of the Company and that does not adversely affect Holder to a greater extent than other similarly situated employees shall not constitute Good Reason; or (II) the Holder being required to relocate the Holder's primary work location to a facility or location that would increase the Holder's one way commute distance by more than thirty-five (35) miles from the Holder's primary work location as of immediately prior to such change. Notwithstanding the foregoing, a Holder's Termination of Service shall not constitute a termination for "Good Reason" as a result of any event described in the preceding sentence unless (A) the Holder provides written notice outlining such conditions, acts or omissions to the Company within thirty (30) days after the first occurrence of such event, (B) to the extent correctable, the Company fails to remedy such circumstance or event within thirty (30) days following the Company's receipt of such written notice and (C) the effective date of the Holder's resignation for "Good Reason" is not later than thirty (30) days after the expiration of the Company's cure period.

2.28 "Greater Than 10% Stockholder" shall mean an individual then owning (within the meaning of Section 424(d) of the Code) more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any "parent corporation" or "subsidiary corporation" (as defined in Sections 424(e) and 424(f) of the Code, respectively).

2.29 "Holder" shall mean a person who has been granted an Award.

2.30 "Incentive Stock Option" shall mean an Option that is intended to qualify as an incentive stock option and conforms to the applicable provisions of Section 422 of the Code.

2.31 "Non-Employee Director" shall mean a Director of the Company who is not an Employee.

2.32 "Non-Employee Director Equity Compensation Policy" shall have the meaning set forth in Section 4.6 hereof.

2.33 "Non-Qualified Stock Option" shall mean an Option that is not an Incentive Stock Option or which is designated as an Incentive Stock Option but does not meet the applicable requirements of Section 422 of the Code.

2.34 "Option" shall mean a right to purchase Shares at a specified exercise price, granted under Article 6 hereof. An Option shall be either a Non-Qualified Stock Option or an Incentive Stock Option; provided, however, that Options granted to Non-Employee Directors and Consultants shall only be Non-Qualified Stock Options.

2.35 "Option Term" shall have the meaning set forth in Section 6.4 hereof.

2.36 "Parent" shall mean any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities ending with the Company if each of the entities other than the Company beneficially owns, at the time of the determination, securities or interests



representing more than fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.37 "Performance Award" shall mean a cash bonus award, stock bonus award, performance award or incentive award that is paid in cash, Shares or a combination of both, awarded under Section 10.1 hereof.

2.38 "Performance-Based Compensation" shall mean any compensation that is intended to qualify as "performance-based compensation" as described in Section 162(m)(4)(C) of the Code.

2.39 "Performance Criteria" shall mean the criteria (and adjustments) that the Committee selects for an Award for purposes of establishing the Performance Goal or Performance Goals for a Performance Period, determined as follows:

(a) The Performance Criteria that shall be used to establish Performance Goals are limited to the following: (i) net earnings or losses (either before or after one or more of the following: (A) interest, (B) taxes, (C) depreciation, (D) amortization and (E) non-cash equity-based compensation expense); (ii) gross or net sales or revenue or sales or revenue growth; (iii) net income (either before or after taxes); (iv) adjusted net income; (v) operating income, earnings or profit (either before or after taxes); (vi) cash flow (including, but not limited to, cash flow return on investments, operating cash flow and free cash flow); (vii) return on assets; (viii) return on capital (or invested capital) and cost of capital; (ix) return on stockholders' equity; (x) total stockholder return; (xi) return on sales; (xii) gross or net profit or operating margin; (xiii) costs, reductions in costs and cost control measures,; (xiv) funds from operations; (xv) expenses; (xvi) working capital; (xvii) earnings or loss per Share; (xviii) adjusted earnings or loss per share; (xix) price per Share or dividends per share (or apperciation in and/or maintenance of such price of dividends); (xx) regulatory body approval for commercialization of a product; (xxi) implementation or completion of critical projects; (xxii) market share; (xxiii) economic value; (xxiv) debt levels or reduction; (xxv) customer retention; (xxvi) sales-related goals; (xxvii) comparisons with other stock market indices; (xxviii) operating efficiency; (xxix) customer satisfaction and/or growth; (xxx) employee satisfaction; (xxxi) research and development achievements; (xxxii) financing and other capital raising transactions; (xxxiii) recruiting and maintaining personnel; and (xxxiv) year-end cash, any of which may be measured either in absolute terms for the Company or any department or operating unit of the Company or as compared to any incremental increase or decrease or as compared to results of a peer group or to market performance indicators or indices.

(b) The Administrator may, in its sole discretion, provide that one or more objectively determinable adjustments shall be made to one or more of the Performance Goals. Such adjustments may include, but are not limited to, one or more of the following: (i) items related to a change in accounting principle; (ii) items relating to financing activities; (iii) expenses for restructuring or productivity initiatives; (iv) other non-operating items; (v) items related to acquisitions; (vi) items attributable to the business operations of any entity acquired by the Company during the Performance Period; (vii) items related to the sale or disposition of a business or segment of a business; (viii) items related to discontinued operations that do not qualify as a segment of a business under Applicable Accounting Standards; (ix) items



attributable to any stock dividend, stock split, combination or exchange of stock occurring during the Performance Period; (x) any other items of significant income or expense which are determined to be appropriate adjustments; (xi) items relating to unusual or extraordinary corporate transactions, events or developments, (xii) items related to amortization of acquired intangible assets; (xiii) items that are outside the scope of the Company's core, on-going business activities; (xiv) items related to acquired in-process research and development; (xv) items relating to changes in tax laws; (xvi) items relating to major licensing or partnership arrangements; (xvii) items relating to asset impairment charges; (xviii) items relating to gains or losses for litigation, arbitration and contractual settlements; or (xix) items relating to any other unusual or nonrecurring events or changes in Applicable Laws, accounting principles or business conditions. For all Awards intended to qualify as Performance-Based Compensation, such determinations shall be made within the time prescribed by, and otherwise in compliance with, Section 162(m) of the Code.

2.40 "Performance Goals" shall mean, with respect to a Performance Period, one or more goals established in writing by the Administrator for the Performance Period based upon one or more Performance Criteria. Depending on the Performance Criteria used to establish such Performance Goals, the Performance Goals may be expressed in terms of overall Company performance or the performance of an Affiliate, a division, business unit or one or more individuals. The achievement of each Performance Goal shall be determined, to the extent applicable, with reference to Applicable Accounting Standards.

2.41 "Performance Period" shall mean one or more periods of time, which may be of varying and overlapping durations, as the Administrator may select, over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Holder's right to, and the payment of, a Performance Award.

2.42 "Performance Stock Unit" shall mean a Performance Award awarded under Section 10.1 hereof which is denominated in units of value including dollar value of Shares.

2.43 "Permitted Transferee" shall mean, with respect to a Holder, (a) prior to the Public Trading Date, any "family member" of the Holder, as defined under Rule 701 of the Securities Act and (b) on or after the Public Trading Date, any "family member" of the Holder, as defined under the General Instructions to Form S-8 Registration Statement under the Securities Act or any successor Form thereto, or any other transferee specifically approved by the Administrator, after taking into account Applicable Law.

2.44 "Plan" shall have the meaning set forth in Article 1 hereof.

2.45 "Prior Plan" shall mean the Corvus Pharmaceuticals 2014 Equity Incentive Plan, as such plan may be amended from time to time.

2.46 "Program" shall mean any program adopted by the Administrator pursuant to the Plan containing the terms and conditions intended to govern a specified type of Award granted under the Plan and pursuant to which such type of Award may be granted under the Plan.



2.47 "Public Trading Date" shall mean the first date upon which the Common Stock is listed (or approved for listing) upon notice of issuance on any securities exchange or designated (or approved for designation) upon notice of issuance as a national market security on an interdealer quotation system.

2.48 "Restricted Stock" shall mean an award of Shares made under Article 8 hereof that is subject to certain restrictions and may be subject to risk of forfeiture or repurchase.

2.49 "Restricted Stock Unit" shall mean a contractual right awarded under Article 9 hereof to receive a Share or the Fair Market Value thereof in cash.

2.50 "Securities Act" shall mean the Securities Act of 1933, as amended.

2.51 "Shares" shall mean shares of Common Stock.

2.52 "Share Limit" shall have the meaning set forth in Section 3.1(a) hereof.

2.53 "Stock Appreciation Right" shall mean a stock appreciation right granted under Article 11 hereof.

2.54 "Stock Appreciation Right Term" shall have the meaning set forth in Section 11.4 hereof.

2.55 "Stock Payment" shall mean (a) a payment in the form of Shares, or (b) an option or other right to purchase Shares, as part of a bonus, deferred compensation or other arrangement, awarded under Section 10.3 hereof.

2.56 "Subsidiary" shall mean any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities beginning with the Company if each of the entities other than the last entity in the unbroken chain beneficially owns, at the time of the determination, securities or interests representing more than fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.57 "Substitute Award" shall mean an Award granted under the Plan upon the assumption of, or in substitution for, outstanding equity awards previously granted by a company or other entity in connection with a corporate transaction, such as a merger, combination, consolidation or acquisition of property or stock; provided, however, that in no event shall the term "Substitute Award" be construed to refer to an award made in connection with the cancellation and repricing of an Option or Stock Appreciation Right.

2.58 "Termination of Service" shall mean:

(a) As to a Consultant, the time when the engagement of a Holder as a Consultant to the Company or an Affiliate is terminated for any reason, with or without cause, including, without limitation, by resignation, discharge, death or retirement, but excluding terminations where the Consultant simultaneously commences or remains in employment or service with the Company or any Affiliate.



(b) As to a Non-Employee Director, the time when a Holder who is a Non-Employee Director ceases to be a Director for any reason, including, without limitation, a termination by resignation, failure to be elected, death or retirement, but excluding terminations where the Holder simultaneously commences or remains in employment or service with the Company or any Affiliate.

(c) As to an Employee, the time when the employee-employer relationship between a Holder and the Company or any Affiliate is terminated for any reason, including, without limitation, a termination by resignation, discharge, death, disability or retirement; but excluding terminations where the Holder simultaneously commences or remains in employment or service with the Company or any Affiliate.

The Administrator, in its sole discretion, shall determine the effect of all matters and questions relating to any Termination of Service, including, without limitation, the question of whether a Termination of Service resulted from a discharge for cause and all questions of whether particular leaves of absence constitute a Termination of Service; provided, however, that, with respect to Incentive Stock Options, unless the Administrator otherwise provides in the terms of any Program, the Award Agreement or otherwise, a leave of absence, change in status from an employee to an independent contractor or other change in the employee-employer relationship shall constitute a Termination of Service only if, and to the extent that, such leave of absence, change in status or other change interrupts employment for the purposes of Section 422(a)(2) of the Code and the then applicable regulations and revenue rulings under said Section. For purposes of the Plan, a Holder's employee-employer relationship or consultancy relations shall be deemed to be terminated in the event that the Affiliate employing or contracting with such Holder ceases to remain an Affiliate following any merger, sale of stock or other corporate transaction or event (including, without limitation, a spin-off).

## ARTICLE 3.

## SHARES SUBJECT TO THE PLAN

3.1 Number of Shares.

(a) Subject to Sections 14.1, 14.2 and 3.1(b) hereof, the aggregate number of Shares which may be issued or transferred pursuant to Awards under the Plan shall be equal to the sum of (i) three million, fifty-one thousand, seven hundred fifty (3,051,750) Shares, (ii) any of the Shares which as of the Effective Date are subject to awards under the Prior Plan that, on or after the Effective Date, terminate, expire or lapse for any reason without the delivery of Shares to the holder thereof (or with the repurchase of any Shares delivered at the original purchase price thereof), up to a maximum of one million, one hundred thirty-six thousand, two hundred twenty-nine (1,136,229) Shares, and (iii) an annual increase on the first day of each year beginning in 2017 and ending in 2026 equal to the lesser of (A) four percent (4%) of the Shares outstanding (on an as converted basis) on the last day of the immediately preceding fiscal year and (B) such smaller number of Shares as determined by the Board (such sum, the "Share Limit"); provided, however, no more than 15,000,000 Shares may be issued upon the exercise of Incentive Stock Options. Notwithstanding the foregoing, Shares added to the Share Limit pursuant to Section 3.1(a)(ii) or Section 3.1(a)(iii) hereof shall be available for issuance as Incentive Stock Options only to the extent that making



such Shares available for issuance as Incentive Stock Options would not cause any Incentive Stock Option to cease to qualify as such. Notwithstanding the foregoing, to the extent permitted under Applicable Law, Awards that provide for the delivery of Shares subsequent to the applicable grant date may be granted in excess of the Share Limit if such Awards provide for the forfeiture or cash settlement of such Awards to the extent that insufficient Shares remain under the Share Limit in this Section 3.1(a) at the time that Shares would otherwise be issued in respect of such Award. As of the Effective Date, no further awards may be granted under the Prior Plan; however, any awards under the Prior Plan that are outstanding as of the Effective Date shall continue to be subject to the terms and conditions of the Prior Plan.

(b) If any Shares subject to an Award are forfeited or expire or such Award is settled for cash (in whole or in part), the Shares subject to such Award shall, to the extent of such forfeiture, expiration or cash settlement, again be available for future grants of Awards under the Plan. In addition, the following Shares shall be available for future grants of Awards under the Plan: (i) Shares tendered by a Holder or withheld by the Company in payment of the exercise price of an Option; (ii) Shares tendered by the Holder or withheld by the Company to satisfy any tax withholding obligation with respect to an Award; and (iii) Shares subject to Stock Appreciation Rights that are not issued in connection with the stock settlement of the Stock Appreciation Rights on exercise thereof. Notwithstanding anything to the contrary contained herein, Shares purchased on the open market with the cash proceeds from the exercise of Options shall not be available for future grants of Awards. Any Shares repurchased by the Company under Section 8.4 hereof at the same price paid by the Holder or a lower price so that such Shares are returned to the Company will again be available for Awards. The payment of Dividend Equivalents in cash in conjunction with any outstanding Awards shall not be counted against the Shares available for issuance under the Plan. Notwithstanding the provisions of this Section 3.1(b), no Shares may again be optioned, granted or awarded if such action would cause an Incentive Stock Option to fail to qualify as an incentive stock option under Section 422 of the Code.

(c) Substitute Awards shall not reduce the Shares authorized for grant under the Plan. Additionally, in the event that a company acquired by the Company or any Affiliate or with which the Company or any Affiliate combines has shares available under a pre-existing plan approved by its stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as adjusted, to the extent appropriate, using the exchange ratio or other adjustment or valuation ratio or formula used in such acquisition or combination to determine the consideration payable to the holders of common stock of the entities party to such acquisition or combination) may be used for Awards under the Plan and shall not reduce the Shares authorized for grant under the Plan; provided that Awards using such available shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not employed by or providing services to the Company or its Affiliates immediately prior to such acquisition or combination.

3.2 Stock Distributed. Any Shares distributed pursuant to an Award may consist, in whole or in part, of authorized and unissued Common Stock, treasury Common Stock or Common Stock purchased on the open market.



3.3 Limitation on Number of Shares Subject to Awards to Non-Employee Directors. The maximum aggregate value of Awards (with such value determined as of the date of grant under Applicable Accounting Standards) that may be granted to any Non-Employee Director during any calendar year shall be $750,000.

## ARTICLE 4.

## GRANTING OF AWARDS

4.1 Participation. The Administrator may, from time to time, select from among all Eligible Individuals, those to whom an Award shall be granted and shall determine the nature and amount of each Award, which shall not be inconsistent with the requirements of the Plan. Except as provided in Section 4.6 hereof regarding the grant of Awards pursuant to the Non-Employee Director Equity Compensation Policy, no Eligible Individual shall have any right to be granted an Award pursuant to the Plan.

4.2 Award Agreement. Each Award shall be evidenced by an Award Agreement that sets forth the terms, conditions and limitations for such Award, which may include the term of the Award, the provisions applicable in the event of the Holder's Termination of Service, and the Company's authority to unilaterally or bilaterally amend, modify, suspend, cancel or rescind an Award. Award Agreements evidencing Awards intended to qualify as Performance-Based Compensation shall contain such terms and conditions as may be necessary to meet the applicable provisions of Section 162(m) of the Code. Award Agreements evidencing Incentive Stock Options shall contain such terms and conditions as may be necessary to meet the applicable provisions of Section 422 of the Code.

4.3 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan, the Plan, and any Award granted or awarded to any individual who is then subject to Section 16 of the Exchange Act, shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including Rule 16b-3 of the Exchange Act and any amendments thereto) that are requirements for the application of such exemptive rule. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

4.4 At-Will Employment; Voluntary Participation. Nothing in the Plan or in any Program or Award Agreement hereunder shall confer upon any Holder any right to continue as an Employee, Director or Consultant of the Company or any Affiliate, or shall interfere with or restrict in any way the rights of the Company and any Affiliate, which rights are hereby expressly reserved, to discharge any Holder at any time for any reason whatsoever, with or without cause, and with or without notice, or to terminate or change all other terms and conditions of employment or engagement, except to the extent expressly provided otherwise in a written agreement between the Holder and the Company or any Affiliate. Participation by each Holder in the Plan shall be voluntary and nothing in the Plan shall be construed as mandating that any Eligible Individual participate in the Plan.



4.5 Foreign Holders. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in countries other than the United States in which the Company and its Affiliates operate or have Employees, Non-Employee Directors or Consultants, or in order to comply with the requirements of any foreign securities exchange, the Administrator, in its sole discretion, shall have the power and authority to: (a) determine which Affiliates shall be covered by the Plan; (b) determine which Eligible Individuals outside the United States are eligible to participate in the Plan; (c) modify the terms and conditions of any Award granted to Eligible Individuals outside the United States to comply with applicable foreign laws or listing requirements of any such foreign securities exchange; (d) establish subplans and modify exercise procedures and other terms and procedures, to the extent such actions may be necessary or advisable (any such subplans and/or modifications may be attached to the Plan as appendices); provided, however, that no such subplans and/or modifications shall increase the share limitations contained in Sections 3.1 and 3.3 hereof; and (e) take any action, before or after an Award is made, that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals or listing requirements of any such foreign securities exchange. Notwithstanding the foregoing, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate Applicable Law. For purposes of the Plan, all references to foreign laws, rules, regulations or taxes shall be references to the laws, rules, regulations and taxes of any applicable jurisdiction other than the United States or a political subdivision thereof.

4.6 Non-Employee Director Awards. The Administrator may, in its discretion, provide that Awards granted to Non-Employee Directors shall be granted pursuant to a written non-discretionary formula established by the Administrator (the "Non-Employee Director Equity Compensation Policy"), subject to the limitations of the Plan. The Non-Employee Director Equity Compensation Policy shall set forth the type of Award(s) to be granted to Non-Employee Directors, the number of Shares to be subject to Non-Employee Director Awards, the conditions on which such Awards shall be granted, become exercisable and/or payable and expire, and such other terms and conditions as the Administrator shall determine in its discretion. The Non-Employee Director Equity Compensation Policy may be modified or terminated by the Administrator from time to time in its discretion.

4.7 Stand-Alone and Tandem Awards. Awards granted pursuant to the Plan may, in the sole discretion of the Administrator, be granted either alone, in addition to, or in tandem with, any other Award granted pursuant to the Plan. Awards granted in addition to or in tandem with other Awards may be granted either at the same time as or at a different time from the grant of such other Awards.

## ARTICLE 5.

## PROVISIONS APPLICABLE TO AWARDS INTENDED TO QUALIFY AS PERFORMANCE-BASED COMPENSATION.

5.1 Purpose. The Committee, in its sole discretion, may determine at the time an Award is granted or at any time thereafter whether any Award is intended to qualify as Performance-Based Compensation. If the Committee, in its sole discretion, decides to grant such an Award to an Eligible Individual that is intended to qualify as Performance-Based



Compensation, then the provisions of this Article 5 shall control over any contrary provision contained in the Plan. The Administrator may in its sole discretion grant Awards to other Eligible Individuals that are based on Performance Criteria or Performance Goals but that do not satisfy the requirements of this Article 5 and that are not intended to qualify as Performance-Based Compensation. Unless otherwise specified by the Committee at the time of grant, the Performance Criteria with respect to an Award intended to be Performance-Based Compensation payable to a Covered Employee shall be determined on the basis of Applicable Accounting Standards.

5.2 Applicability. The grant of an Award to an Eligible Individual for a particular Performance Period shall not require the grant of an Award to such Eligible Individual in any subsequent Performance Period and the grant of an Award to any one Eligible Individual shall not require the grant of an Award to any other Eligible Individual in such period or in any other period.

5.3 Types of Awards. Notwithstanding anything in the Plan to the contrary, the Committee may grant any Award to an Eligible Individual intended to qualify as Performance-Based Compensation, including, without limitation, Restricted Stock the restrictions with respect to which lapse upon the attainment of specified Performance Goals, Restricted Stock Units that vest and become payable upon the attainment of specified Performance Goals and any Performance Awards that vest or become exercisable or payable upon the attainment of one or more specified Performance Goals.

5.4 Procedures with Respect to Performance-Based Awards. To the extent necessary to comply with the requirements of Section 162(m)(4)(C) of the Code, with respect to any Award granted to one or more Eligible Individuals which is intended to qualify as Performance-Based Compensation, no later than ninety (90) days following the commencement of any Performance Period or any designated fiscal period or period of service (or such earlier time as may be required under Section 162(m) of the Code), the Committee shall, in writing, (a) designate one or more Eligible Individuals, (b) select the Performance Criteria applicable to the Performance Period, (c) establish the Performance Goals, and amounts of such Awards, as applicable, which may be earned for such Performance Period based on the Performance Criteria, and (d) specify the relationship between the Performance Criteria and the Performance Goals and the amounts of such Awards, as applicable, to be earned by each Covered Employee for such Performance Period. Following the completion of each Performance Period, the Committee shall certify in writing whether and the extent to which the applicable Performance Goals have been achieved for such Performance Period. In determining the amount earned under such Awards, unless otherwise provided in an applicable Program or Award Agreement, the Committee shall have the right to reduce or eliminate (but not to increase) the amount payable at a given level of performance to take into account additional factors that the Committee may deem relevant, including the assessment of individual or corporate performance for the Performance Period.

5.5 Payment of Performance-Based Awards. Unless otherwise provided in the applicable Program or Award Agreement or pursuant to Section 14.2 hereof and only to the extent otherwise permitted by Section 162(m)(4)(C) of the Code, as to an Award that is intended to qualify as Performance-Based Compensation, the Holder must be employed by the



Company or an Affiliate throughout the applicable Performance Period. Unless otherwise provided in the applicable Performance Goals, Program or Award Agreement, a Holder shall be eligible to receive payment pursuant to such Awards for a Performance Period only if and to the extent the Performance Goals for such applicable Performance Period are achieved.

5.6 Additional Limitations. Notwithstanding any other provision of the Plan and except as otherwise determined by the Administrator, any Award which is granted to an Eligible Individual and is intended to qualify as Performance-Based Compensation shall be subject to any additional limitations set forth in Section 162(m) of the Code or any regulations or rulings issued thereunder that are requirements for qualification as Performance-Based Compensation, and the Plan and any applicable Program and Award Agreement shall be deemed amended to the extent necessary to conform to such requirements.

## ARTICLE 6.

## GRANTING OF OPTIONS

6.1 Granting of Options to Eligible Individuals. The Administrator is authorized to grant Options to Eligible Individuals from time to time, in its sole discretion, on such terms and conditions as it may determine which shall not be inconsistent with the Plan.

6.2 Qualification of Incentive Stock Options. No Incentive Stock Option shall be granted to any person who is not an Employee of the Company or any subsidiary corporation or parent corporation (as defined in Section 424(f) and (e), respectively, of the Code) of the Company. No person who qualifies as a Greater Than 10% Stockholder may be granted an Incentive Stock Option unless such Incentive Stock Option conforms to the applicable provisions of Section 422 of the Code. Any Incentive Stock Option granted under the Plan may be modified by the Administrator, with the consent of the Holder, to disqualify such Option from treatment as an "incentive stock option" under Section 422 of the Code. To the extent that the aggregate fair market value of stock with respect to which "incentive stock options" (within the meaning of Section 422 of the Code, but without regard to Section 422(d) of the Code) are exercisable for the first time by a Holder during any calendar year under the Plan, and all other plans of the Company and any subsidiary or parent corporation thereof (each as defined in Section 424(f) and (e), respectively, of the Code), exceeds $100,000, the Options shall be treated as Non-Qualified Stock Options to the extent required by Section 422 of the Code. The rule set forth in the preceding sentence shall be applied by taking Options and other "incentive stock options" into account in the order in which they were granted and the Fair Market Value of stock shall be determined as of the time the respective options were granted. In addition, to the extent that any Options otherwise fail to qualify as Incentive Stock Options, such Options shall be treated as Nonqualified Stock Options.

6.3 Option Exercise Price. Except as provided in Article 14 hereof, the exercise price per Share subject to each Option shall be set by the Administrator, but shall not be less than one hundred percent (100%) of the Fair Market Value of a Share on the date the Option is granted (or, as to Incentive Stock Options, on the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code). In addition, in the case of Incentive Stock Options granted to a Greater Than 10% Stockholder, such price shall not be less than one



hundred ten percent (110%) of the Fair Market Value of a Share on the date the Option is granted (or the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code).

6.4 Option Term. The term of each Option (the "Option Term") shall be set by the Administrator in its sole discretion; provided, however, that the Option Term shall not be more than ten (10) years from the date the Option is granted, or five (5) years from the date an Incentive Stock Option is granted to a Greater Than 10% Stockholder. The Administrator shall determine the time period, including the time period following a Termination of Service, during which the Holder has the right to exercise the vested Options, which time period may not extend beyond the last day of the Option Term. Except as limited by the requirements of Section 409A or Section 422 of the Code and regulations and rulings thereunder, the Administrator may extend the Option Term of any outstanding Option, may extend the time period during which vested Options may be exercised following any Termination of Service of the Holder, and may amend, subject to Section 14.1, any other term or condition of such Option relating to such a Termination of Service.

6.5 Option Vesting.

(a) The period during which the right to exercise, in whole or in part, an Option vests in the Holder shall be set by the Administrator and the Administrator may determine that an Option may not be exercised in whole or in part for a specified period after it is granted. Such vesting may be based on service with the Company or any Affiliate, any of the Performance Criteria, or any other criteria selected by the Administrator. At any time after the grant of an Option, the Administrator may, in its sole discretion and subject to whatever terms and conditions it selects, accelerate the vesting of the Option, including following a Termination of Service; provided, that in no event shall an Option become exercisable following its expiration, termination or forfeiture.

(b) No portion of an Option which is unexercisable at a Holder's Termination of Service shall thereafter become exercisable, except as may be otherwise provided by the Administrator either in a Program, an Award Agreement or by action of the Administrator following the grant of the Option.

6.6 Substitute Awards. Notwithstanding the foregoing provisions of this Article 6 to the contrary, in the case of an Option that is a Substitute Award, the price per share of the shares subject to such Option may be less than the Fair Market Value per share on the date of grant; provided that the excess of: (a) the aggregate Fair Market Value (as of the date such Substitute Award is granted) of the shares subject to the Substitute Award, over (b) the aggregate exercise price thereof does not exceed the excess of: (x) the aggregate fair market value (as of the time immediately preceding the transaction giving rise to

the Substitute Award, such fair market value to be determined by the Administrator) of the shares of the predecessor entity that were subject to the grant assumed or substituted for by the Company, over (y) the aggregate exercise price of such shares.

6.7 Substitution of Stock Appreciation Rights. The Administrator may provide in an applicable Program or Award Agreement evidencing the grant of an Option that the



Administrator, in its sole discretion, shall have the right to substitute a Stock Appreciation Right for such Option at any time prior to or upon exercise of such Option; provided that such Stock Appreciation Right shall be exercisable with respect to the same number of Shares for which such substituted Option would have been exercisable, and shall also have the same exercise price, vesting schedule and remaining Option Term as the substituted Option.

## ARTICLE 7.

## EXERCISE OF OPTIONS

7.1 Partial Exercise. An exercisable Option may be exercised in whole or in part. However, an Option shall not be exercisable with respect to fractional Shares and the Administrator may require that, by the terms of the Option, a partial exercise must be with respect to a minimum number of Shares.

7.2 Manner of Exercise. All or a portion of an exercisable Option shall be deemed exercised upon delivery of all of the following to the Secretary of the Company, or such other person or entity designated by the Administrator, or his, her or its office, as applicable:

(a) A written or electronic notice complying with the applicable rules established by the Administrator stating that the Option, or a portion thereof, is exercised. The notice shall be signed by the Holder or other person then entitled to exercise the Option or such portion of the Option;

(b) Such representations and documents as the Administrator, in its sole discretion, deems necessary or advisable to effect compliance with all Applicable Laws. The Administrator may, in its sole discretion, also take whatever additional actions it deems appropriate to effect such compliance including, without limitation, placing legends on share certificates and issuing stop-transfer notices to agents and registrars;

(c) In the event that the Option shall be exercised pursuant to Section 12.3 hereof by any person or persons other than the Holder, appropriate proof of the right of such person or persons to exercise the Option, as determined in the sole discretion of the Administrator; and

(d) Full payment of the exercise price and applicable withholding taxes to the stock administrator of the Company for the Shares with respect to which the Option, or portion thereof, is exercised, in a manner permitted by Section 12.1 and 12.2 hereof.

7.3 Notification Regarding Disposition. The Holder shall give the Company prompt written or electronic notice of any disposition of Shares acquired by exercise of an Incentive Stock Option which occurs within (a) two (2) years from the date of grant (including the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code) of such Option to such Holder, or (b) one (1) year after the transfer of such Shares to such Holder.



## ARTICLE 8.

## AWARD OF RESTRICTED STOCK

8.1 Award of Restricted Stock.

(a) The Administrator is authorized to grant Restricted Stock to Eligible Individuals, and shall determine the terms and conditions, including the restrictions applicable to each award of Restricted Stock, which terms and conditions shall not be inconsistent with the Plan, and may impose such conditions on the issuance of such Restricted Stock as it deems appropriate.

(b) The Administrator shall establish the purchase price, if any, and form of payment for Restricted Stock; provided, however, that if a purchase price is charged, such purchase price shall be no less than the par value, if any, of the Shares to be purchased, unless otherwise permitted by Applicable Law. In all cases, legal consideration shall be required for each issuance of Restricted Stock to the extent required by Applicable Law.

8.2 Rights as Stockholders. Subject to Section 8.4 hereof, upon issuance of Restricted Stock, the Holder shall have, unless otherwise provided by the Administrator, all the rights of a stockholder with respect to said Shares, subject to the restrictions in the applicable Program or in each individual Award Agreement, including the right to receive all dividends and other distributions paid or made with respect to the Shares; provided, however, that, in the sole discretion of the Administrator, any extraordinary distributions with respect to the Shares shall be subject to the restrictions set forth in Section 8.3 hereof. In addition, with respect to a share of Restricted Stock with performance-based vesting, dividends which are paid prior to vesting shall only be paid out to the Holder to the extent that the performance-based vesting conditions are subsequently satisfied and the share of Restricted Stock vests.

8.3 Restrictions. All shares of Restricted Stock (including any shares received by Holders thereof with respect to shares of Restricted Stock as a result of stock dividends, stock splits or any other form of recapitalization) shall, in the terms of the applicable Program or Award Agreement, be subject to such restrictions and vesting requirements as the Administrator shall provide. Such restrictions may include, without limitation, restrictions concerning voting rights and transferability and such restrictions may lapse separately or in combination at such times and pursuant to such circumstances or based on such criteria as selected by the Administrator, including, without limitation, criteria based on the Holder's duration of employment, directorship or consultancy with the Company, the Performance Criteria, Company or Affiliate performance, individual performance or other criteria selected by the Administrator. By action taken after the Restricted Stock is issued, the Administrator may, on such terms and conditions as it may determine to be appropriate, accelerate the vesting of such Restricted Stock by removing any or all of the restrictions imposed by the terms of any applicable Program and/or the Award Agreement. Restricted Stock may not be sold or encumbered until all restrictions are terminated, lapse or expire.

8.4 Repurchase or Forfeiture of Restricted Stock. Except as otherwise determined by the Administrator at the time of the grant of the Award or thereafter, if no price was paid by



the Holder for the Restricted Stock, upon a Termination of Service during the applicable restriction period, the Holder's rights in unvested Restricted Stock then subject to restrictions shall lapse and such Restricted Stock shall be surrendered to the Company and cancelled without consideration. If a price was paid by the Holder for the Restricted Stock, upon a Termination of Service during the applicable restriction period, the Company shall have the right to repurchase from the Holder the unvested Restricted Stock then subject to restrictions at a cash price per Share equal to the price paid by the Holder for such Restricted Stock or such other amount as may be specified in an applicable Program or the Award Agreement. Notwithstanding the foregoing, the Administrator in its sole discretion may provide that in the event of certain events, including a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service or any other event, the Holder's rights in unvested Restricted Stock shall not lapse, such Restricted Stock shall vest and, if applicable, the Company shall not have a right of repurchase.

8.5 Certificates for Restricted Stock. Restricted Stock may be evidenced in such manner as the Administrator shall determine. Certificates or book entries evidencing shares of Restricted Stock must include an appropriate legend referring to the terms, conditions, and restrictions applicable to such Restricted Stock. The Company may, in its sole discretion, (a) retain physical possession of any stock certificate evidencing shares of Restricted Stock until the restrictions thereon shall have lapsed and/or (b) require that the stock certificates evidencing shares of Restricted Stock be held in custody by a designated escrow agent (which may but need not be the Company) until the restrictions thereon shall have lapsed, and that the Holder deliver a stock power, endorsed in blank, relating to such Restricted Stock.

8.6 Section 83(b) Election. If a Holder makes an election under Section 83(b) of the Code to be taxed with respect to the Restricted Stock as of the date of transfer of the Restricted Stock rather than as of the date or dates upon which the Holder would otherwise be taxable under Section 83(a) of the Code, the Holder shall be required to deliver a copy of such election to the Company promptly after filing such election with the Internal Revenue Service.

## ARTICLE 9.
## AWARD OF RESTRICTED STOCK UNITS

9.1 Grant of Restricted Stock Units. The Administrator is authorized to grant Awards of Restricted Stock Units to any Eligible Individual selected by the Administrator in such amounts and subject to such terms and conditions as determined by the Administrator.

9.2 Term. Except as otherwise provided herein, the term, if any, of a Restricted Stock Unit award shall be set by the Administrator in its sole discretion.

9.3 Purchase Price. The Administrator shall specify the purchase price, if any, to be paid by the Holder to the Company with respect to any Restricted Stock Unit award; provided, however, that value of the consideration shall not be less than the par value of a Share, unless otherwise permitted by Applicable Law.

9.4 Vesting of Restricted Stock Units. At the time of grant, the Administrator shall specify the date or dates on which the Restricted Stock Units shall become fully vested and



nonforfeitable, and may specify such conditions to vesting as it deems appropriate, including, without limitation, vesting based upon the Holder's duration of service to the Company or any Affiliate, one or more Performance Criteria, Company or Affiliate performance, individual performance or other specific criteria, in each case on a specified date or dates or over any period or periods, as determined by the Administrator.

9.5 Maturity and Payment. At the time of grant, the Administrator shall specify the maturity date applicable to each grant of Restricted Stock Units which shall be no earlier than the vesting date or dates of the Award and may be determined at the election of the Holder (if permitted by the applicable Award Agreement); provided that, except as otherwise determined by the Administrator and set forth in any applicable Award Agreement, and subject to compliance with Section 409A of the Code, in no event shall the maturity date relating to each Restricted Stock Unit occur following the later of (a) the fifteenth (15th) day of the third (3rd) month following the end of calendar year in which the Restricted Stock Unit vests; or (b) the fifteenth (15th) day of the third (3rd) month following the end of the Company's fiscal year in which the Restricted Stock Unit vests. On the maturity date, the Company shall, subject to Section 12.4(e) hereof, transfer to the Holder one unrestricted, fully transferable Share for each Restricted Stock Unit scheduled to be paid out on such date and not previously forfeited, or, in the sole discretion of the Administrator, an amount in cash equal to the Fair Market Value of such Shares on the maturity date or a combination of cash and Shares as determined by the Administrator.

9.6 Payment upon Termination of Service. An Award of Restricted Stock Units shall only be payable while the Holder is an Employee, a Consultant or a member of the Board, as applicable; provided, however, that the Administrator, in its sole and absolute discretion may provide (in an Award Agreement or otherwise) that a Restricted Stock Unit award may be paid subsequent to a Termination of Service in certain events, including a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service.

9.7 No Rights as a Stockholder. Unless otherwise determined by the Administrator, a Holder of Restricted Stock Units shall possess no incidents of ownership with respect to the Shares represented by such Restricted Stock Units, unless and until such Shares are transferred to the Holder pursuant to the terms of this Plan and the Award Agreement.

9.8 Dividend Equivalents. Subject to Section 10.2 hereof, the Administrator may, in its sole discretion, provide that Dividend Equivalents shall be earned by a Holder of Restricted Stock Units based on dividends declared on the Common Stock, to be credited as of dividend payment dates with respect to dividends with record dates that occur during the period between the date an Award of Restricted Stock Units is granted to a Holder and the maturity date of such Award.

**ARTICLE 10.**

**AWARD OF PERFORMANCE AWARDS, DIVIDEND EQUIVALENTS, STOCK PAYMENTS, DEFERRED STOCK, DEFERRED STOCK UNITS**

10.1 Performance Awards.

(a) The Administrator is authorized to grant Performance Awards, including Awards of Performance Stock Units, to any Eligible Individual and to determine whether such Performance Awards shall be Performance-Based Compensation. The value of Performance Awards, including Performance Stock Units, may be linked to any one or more of the Performance Criteria or other specific criteria determined by the Administrator, in each case on a specified date or dates or over any period or periods determined by the Administrator. Performance Awards, including Performance Stock Unit awards may be paid in cash, Shares, or a combination of cash and Shares, as determined by the Administrator.

(b) Without limiting Section 10.1(a) hereof, the Administrator may grant Performance Awards to any Eligible Individual in the form of a cash bonus payable upon the attainment of objective Performance Goals, or such other criteria, whether or not objective, which are established by the Administrator, in each case on a specified date or dates or over any period or periods determined by the Administrator. Any such bonuses paid to a Holder which are intended to be Performance-Based Compensation shall be based upon objectively determinable bonus formulas established in accordance with the provisions of Article 5 hereof.

10.2 Dividend Equivalents.

(a) Dividend Equivalents may be granted by the Administrator based on dividends declared on the Common Stock, to be credited as of dividend payment dates with respect to dividends with record dates that occur during the period between the date an Award is granted to a Holder and the date such Award vests, is exercised, is distributed or expires, as determined by the Administrator. Such Dividend Equivalents shall be converted to cash or additional Shares by such formula and at such time and subject to such limitations as may be determined by the Administrator. In addition, Dividend Equivalents with respect to Awards with performance-based vesting that are based on dividends which are paid prior to the vesting of such Award shall only be paid out to the Holder to the extent that the performance-based vesting conditions are subsequently satisfied and the Award vests.

(b) Notwithstanding the foregoing, no Dividend Equivalents shall be payable with respect to Options or Stock Appreciation Rights.

10.3 Stock Payments. The Administrator is authorized to make Stock Payments to any Eligible Individual. The number or value of Shares of any Stock Payment shall be determined by the Administrator and may be based upon one or more Performance Criteria or any other specific criteria, including service to the Company or any Affiliate, determined by the Administrator. Shares underlying a Stock Payment which is subject to a vesting schedule or other conditions or criteria set by the Administrator will not be issued until those conditions have been satisfied. Unless otherwise provided by the Administrator, a Holder of a Stock Payment shall have no rights as a Company stockholder with respect to such Stock Payment



until such time as the Stock Payment has vested (if applicable) and the Shares underlying the Award have been issued to the Holder. Stock Payments may, but are not required to, be made in lieu of base salary, bonus, fees or other cash compensation otherwise payable to such Eligible Individual.

10.4 Deferred Stock. The Administrator is authorized to grant Deferred Stock to any Eligible Individual. The number of shares of Deferred Stock shall be determined by the Administrator and may (but is not required to) be based on one or more Performance Criteria or other specific criteria, including service to the Company or any Affiliate, as the Administrator determines, in each case on a specified date or dates or over any period or periods determined by the Administrator. Shares underlying a Deferred Stock award which is subject to a vesting schedule or other conditions or criteria set by the Administrator will be issued on the vesting date(s) or date(s) that those conditions and criteria have been satisfied, as applicable. Unless otherwise provided by the Administrator, a Holder of Deferred Stock shall have no rights as a Company stockholder with respect to such Deferred Stock until such time as the Award has vested and any other applicable conditions and/or criteria have been satisfied and the Shares underlying the Award have been issued to the Holder.

10.5 Deferred Stock Units. The Administrator is authorized to grant Deferred Stock Units to any Eligible Individual. The number of Deferred Stock Units shall be determined by the Administrator and may (but is not required to) be based on one or more Performance Criteria or other specific criteria, including service to the Company or any Affiliate, as the Administrator determines, in each case on a specified date or dates or over any period or periods determined by the Administrator. Each Deferred Stock Unit shall entitle the Holder thereof to receive one Share on the date the Deferred Stock Unit becomes vested or upon a specified settlement date thereafter (which settlement date may (but is not required to) be the date of the Holder's Termination of Service). Shares underlying a Deferred Stock Unit award which is subject to a vesting schedule or other conditions or criteria set by the Administrator will not be issued until on or following the date that those conditions and criteria have been satisfied. Unless otherwise provided by the Administrator, a Holder of Deferred Stock Units shall have no rights as a Company stockholder with respect to such Deferred Stock Units until such time as the Award has vested and any other applicable conditions and/or criteria have been satisfied and the Shares underlying the Award have been issued to the Holder.

10.6 Term. The term, if any, of a Performance Award, Dividend Equivalent award, Stock Payment award, Deferred Stock award and/or Deferred Stock Unit award shall be set by the Administrator in its sole discretion.

10.7 Purchase Price. The Administrator may establish the purchase price of a Performance Award, Shares distributed as a Stock Payment award, shares of Deferred Stock or Shares distributed pursuant to a Deferred Stock Unit award; provided, however, that value of the consideration shall not be less than the par value of a Share, unless otherwise permitted by Applicable Law.

10.8 Termination of Service. A Performance Award, Stock Payment award, Dividend Equivalent award, Deferred Stock award and/or Deferred Stock Unit award is distributable only while the Holder is an Employee, Director or Consultant, as applicable. The

Administrator, however, in its sole discretion may provide that the Performance Award, Dividend Equivalent award, Stock Payment award, Deferred Stock award and/or Deferred Stock Unit award may be distributed subsequent to a Termination of Service in certain events, including a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service.

**ARTICLE 11.**

**AWARD OF STOCK APPRECIATION RIGHTS**

11.1 Grant of Stock Appreciation Rights.

(a) The Administrator is authorized to grant Stock Appreciation Rights to Eligible Individuals from time to time, in its sole discretion, on such terms and conditions as it may determine consistent with the Plan.

(b) A Stock Appreciation Right shall entitle the Holder (or other person entitled to exercise the Stock Appreciation Right pursuant to the Plan) to exercise all or a specified portion of the Stock Appreciation Right (to the extent then exercisable pursuant to its terms) and to receive from the Company an amount determined by multiplying the difference obtained by subtracting the exercise price per Share of the Stock Appreciation Right from the Fair Market Value on the date of exercise of the Stock Appreciation Right by the number of Shares with respect to which the Stock Appreciation Right shall have been exercised, subject to any limitations the Administrator may impose. Except as described in (c) below or in Section 14.2 hereof, the exercise price per Share subject to each Stock Appreciation Right shall be set by the Administrator, but shall not be less than one hundred percent (100%) of the Fair Market Value on the date the Stock Appreciation Right is granted.

(c) Notwithstanding the foregoing provisions of Section 11.1(b) hereof to the contrary, in the case of a Stock Appreciation Right that is a Substitute Award, the price per Share of the Shares subject to such Stock Appreciation Right may be less than one hundred percent (100%) of the Fair Market Value per share on the date of grant; provided that the excess of: (i) the aggregate Fair Market Value (as of the date such Substitute Award is granted) of the shares subject to the Substitute Award, over (ii) the aggregate exercise price thereof does not exceed the excess of: (x) the aggregate fair market value (as of the time immediately preceding the transaction giving rise to the Substitute Award, such fair market value to be determined by the Administrator) of the shares of the predecessor entity that were subject to the grant assumed or substituted for by the Company, over (y) the aggregate exercise price of such shares.

11.2 Stock Appreciation Right Vesting.

(a) The period during which the right to exercise, in whole or in part, a Stock Appreciation Right vests in the Holder shall be set by the Administrator and the Administrator may determine that a Stock Appreciation Right may not be exercised in whole or in part for a specified period after it is granted. Such vesting may be based on service with the Company or any Affiliate, any of the Performance Criteria or any other criteria selected by the Administrator. At any time after grant of a Stock Appreciation Right, the Administrator may, in its sole



discretion and subject to whatever terms and conditions it selects, accelerate the period during which a Stock Appreciation Right vests.

(b) No portion of a Stock Appreciation Right which is unexercisable at a Holder's Termination of Service shall thereafter become exercisable, except as may be otherwise provided by the Administrator either in the applicable Program or Award Agreement or by action of the Administrator following the grant of the Stock Appreciation Right, including following a Termination of Service; provided, that in no event shall a Stock Appreciation Right become exercisable following its expiration, termination or forfeiture.

11.3 Manner of Exercise. All or a portion of an exercisable Stock Appreciation Right shall be deemed exercised upon delivery of all of the following to the stock administrator of the Company, or such other person or entity designated by the Administrator, or his, her or its office, as applicable:

(a) A written or electronic notice complying with the applicable rules established by the Administrator stating that the Stock Appreciation Right, or a portion thereof, is exercised. The notice shall be signed by the Holder or other person then entitled to exercise the Stock Appreciation Right or such portion of the Stock Appreciation Right;

(b) Such representations and documents as the Administrator, in its sole discretion, deems necessary or advisable to effect compliance with all Applicable Laws. The Administrator may, in its sole discretion, also take whatever additional actions it deems appropriate to effect such compliance; and

(c) In the event that the Stock Appreciation Right shall be exercised pursuant to this Section 11.3 hereof by any person or persons other than the Holder, appropriate proof of the right of such person or persons to exercise the Stock Appreciation Right.

11.4 Stock Appreciation Right Term. The term of each Stock Appreciation Right (the "Stock Appreciation Right Term") shall be set by the Administrator in its sole discretion; provided, however, that the term shall not be more than ten (10) years from the date the Stock Appreciation Right is granted. The Administrator shall determine the time period, including the time period following a Termination of Service, during which the Holder has the right to exercise the vested Stock Appreciation Rights, which time period may not extend beyond the expiration date of the Stock Appreciation Right Term. Except as limited by the requirements of Section 409A of the Code and regulations and rulings thereunder or the first sentence of this Section 11.4, the Administrator may extend the Stock Appreciation Right Term of any outstanding Stock Appreciation Right, may extend the time period during which vested Stock Appreciation Rights may be exercised following any Termination of Service of the Holder, and may amend, subject to Section 14.1, any other term or condition of such Stock Appreciation Right relating to such a Termination of Service.

11.5 Payment. Payment of the amounts payable with respect to Stock Appreciation Rights pursuant to this Article 11 shall be in cash, Shares (based on its Fair Market Value as of the date the Stock Appreciation Right is exercised), or a combination of both, as determined by the Administrator.

**ARTICLE 12.**

**ADDITIONAL TERMS OF AWARDS**

12.1 Payment. The Administrator shall determine the methods by which payments by any Holder with respect to any Awards granted under the Plan shall be made, including, without limitation: (a) cash or check, (b) Shares (including, in the case of payment of the exercise price of an Award, Shares issuable pursuant to the exercise of the Award) or Shares held for such period of time as may be required by the Administrator in order to avoid adverse accounting consequences, in each case, having a Fair Market Value on the date of delivery equal to the aggregate payments required, (c) delivery of a written or electronic notice that the Holder has placed a market sell order with a broker with respect to Shares then issuable upon exercise or vesting of an Award, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate payments required; provided that payment of such proceeds is then made to the Company upon settlement of such sale, or (d) other form of legal consideration acceptable to the Administrator. The Administrator shall also determine the methods by which Shares shall be delivered or deemed to be delivered to Holders. Notwithstanding any other provision of the Plan to the contrary, no Holder who is a Director or an "executive officer" of the Company within the meaning of Section 13(k) of the Exchange Act shall be permitted to make payment with respect to any Awards granted under the Plan, or continue any extension of credit with respect to such payment, with a loan from the Company or a loan arranged by the Company in violation of Section 13(k) of the Exchange Act.

12.2 Tax Withholding. The Company or any Affiliate shall have the authority and the right to deduct or withhold, or require a Holder to remit to the Company, an amount sufficient to satisfy federal, state, local and foreign taxes (including the Holder's FICA or employment tax or other social security contribution obligation) required by law to be withheld with respect to any taxable event concerning a Holder arising as a result of the Plan. The Administrator may in its sole discretion and in satisfaction of the foregoing requirement determine to satisfy, or allow a Holder to satisfy, such obligations by any payment means described in Section 12.1 hereof, including without limitation, by withholding Shares, or allowing such Holder to elect to have the Company withhold Shares, otherwise issuable under an Award (or providing for the surrender of Shares). The number of Shares which may be so withheld or surrendered shall be limited to the number of Shares which have a fair market value on the date of withholding or repurchase equal to the aggregate amount of such liabilities based on the minimum statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such supplemental taxable income. The Administrator shall determine the fair market value of the Shares, consistent with applicable provisions of the Code, for tax withholding obligations due in connection with a broker-assisted cashless Option or Stock Appreciation Right exercise involving the sale of Shares to pay the Option or Stock Appreciation Right exercise price or any tax withholding obligation.

12.3 Transferability of Awards.

(a) Except as otherwise provided in Sections 12.3(b) and 12.3(c) hereof:



(i) No Award under the Plan may be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution or, subject to the consent of the Administrator, pursuant to a DRO, unless and until such Award has been exercised, or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed;

(ii) No Award or interest or right therein shall be liable for the debts, contracts or engagements of the Holder or the Holder's successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, hypothecation, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy) unless and until such Award has been exercised, or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed, and any attempted disposition of an Award prior to the satisfaction of these conditions shall be null and void and of no effect, except to the extent that such disposition is permitted by clause (i) of this Section 12.3(a); and

(iii) During the lifetime of the Holder, only the Holder may exercise an Award (or any portion thereof) granted to such Holder under the Plan, unless it has been disposed of pursuant to a DRO; after the death of the Holder, any exercisable portion of an Award may, prior to the time when such portion becomes unexercisable under the Plan or the applicable Program or Award Agreement, be exercised by the Holder's personal representative or by any person empowered to do so under the deceased Holder's will or under the then applicable laws of descent and distribution.

(b) Notwithstanding Section 12.3(a) hereof, the Administrator, in its sole discretion, may determine to permit a Holder or a Permitted Transferee of such Holder to transfer an Award other than an Incentive Stock Option (unless such Incentive Stock Option is to become a Non-Qualified Stock Option) to any one or more Permitted Transferees, subject to the following terms and conditions: (i) an Award transferred to a Permitted Transferee shall not be assignable or transferable by the Permitted Transferee (other than to another Permitted Transferee of the applicable Holder) other than by will or the laws of descent and distribution or pursuant to a DRO; (ii) an Award transferred to a Permitted Transferee shall continue to be subject to all the terms and conditions of the Award as applicable to the original Holder (other than the ability to further transfer the Award); and (iii) the Holder (or transferring Permitted Transferee) and the Permitted Transferee shall execute any and all documents requested by the Administrator, including, without limitation documents to (A) confirm the status of the transferee as a Permitted Transferee, (B) satisfy any requirements for an exemption for the transfer under Applicable Law and (C) evidence the transfer.

(c) Notwithstanding Section 12.3(a) hereof, a Holder may, in the manner determined by the Administrator, designate a beneficiary to exercise the rights of the Holder and to receive any distribution with respect to any Award upon the Holder's death. A beneficiary, legal guardian, legal representative, or other person claiming any rights pursuant to the Plan is subject to all terms and conditions of the Plan and any Program and/or Award Agreement applicable to the Holder, except to the extent the Plan, an applicable Program and/or the Award Agreement otherwise provide, and to any additional restrictions deemed necessary or appropriate

by the Administrator. If the Holder is married or a domestic partner in a domestic partnership qualified under Applicable Law and resides in a community property state, a designation of a person other than the Holder's spouse or domestic partner, as applicable, as the Holder's beneficiary with respect to more than fifty percent (50%) of the Holder's interest in the Award shall not be effective without the prior written or electronic consent of the Holder's spouse or domestic partner, as applicable. If no beneficiary has been designated or survives the Holder, payment shall be made to the person entitled thereto pursuant to the Holder's will or the laws of descent and distribution. Subject to the foregoing, a beneficiary designation may be changed or revoked by a Holder at any time; provided that the change or revocation is filed with the Administrator prior to the Holder's death.

12.4 Conditions to Issuance of Shares.

(a) Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates or make any book entries evidencing Shares pursuant to the exercise of any Award, unless and until the Board or the Committee has determined, with advice of counsel, that the issuance of such Shares is in compliance with all Applicable Laws, and the Shares are covered by an effective registration statement or applicable exemption from registration. In addition to the terms and conditions provided herein, the Board or the Committee may require that a Holder make such reasonable covenants, agreements, and representations as the Board or the Committee, in its discretion, deems advisable in order to comply with any such Applicable Law.

(b) All Share certificates delivered pursuant to the Plan and all Shares issued pursuant to book entry procedures are subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with Applicable Law. The Administrator may place legends on any Share certificate or book entry to reference restrictions applicable to the Shares.

(c) The Administrator shall have the right to require any Holder to comply with any timing or other restrictions with respect to the settlement, distribution or exercise of any Award, including a window-period limitation, as may be imposed in the sole discretion of the Administrator.

(d) No fractional Shares shall be issued and the Administrator shall determine, in its sole discretion, whether cash shall be given in lieu of fractional Shares or whether such fractional Shares shall be eliminated by rounding down.

(e) Notwithstanding any other provision of the Plan, unless otherwise determined by the Administrator or required by any Applicable Law, the Company shall not deliver to any Holder certificates evidencing Shares issued in connection with any Award and instead such Shares shall be recorded in the books of the Company (or, as applicable, its transfer agent or stock plan administrator).

12.5 Forfeiture and Claw-Back Provisions. Pursuant to its general authority to determine the terms and conditions applicable to Awards under the Plan, the Administrator



shall have the right to provide, in an Award Agreement or otherwise, or to require a Holder to agree by separate written or electronic instrument, that:

(a) (i) Any proceeds, gains or other economic benefit actually or constructively received by the Holder upon any receipt or exercise of the Award, or upon the receipt or resale of any Shares underlying the Award, must be paid to the Company, and (ii) the Award shall terminate and any unexercised portion of the Award (whether or not vested) shall be forfeited, if (x) a Termination of Service occurs prior to a specified date, or within a specified time period following receipt or exercise of the Award, or (y) the Holder at any time, or during a specified time period, engages in any activity in competition with the Company, or which is inimical, contrary or harmful to the interests of the Company, as further defined by the Administrator or (z) the Holder incurs a Termination of Service for "cause" (as such term is defined in the sole discretion of the Administrator, or as set forth in a written agreement relating to such Award between the Company and the Holder); and

(b) All Awards (including any proceeds, gains or other economic benefit actually or constructively received by the Holder upon any receipt or exercise of any Award or upon the receipt or resale of any Shares underlying the Award) shall be subject to the provisions of any claw-back policy implemented by the Company, including, without limitation, any claw-back policy adopted to comply with the requirements of Applicable Law, including, without limitation, the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder, to the extent set forth in such claw-back policy and/or in the applicable Award Agreement.

12.6 Repricing. Subject to Section 14.2 hereof, the Administrator shall, without the approval of the stockholders of the Company, have the authority to (i) amend any outstanding Option or Stock Appreciation Right to reduce its price per Share, or (ii) cancel any Option or Stock Appreciation Right in exchange for cash or another Award when the Option or Stock Appreciation Right price per Share exceeds the Fair Market Value of the underlying Shares, in its sole discretion.

12.7 Leave of Absence. Unless the Administrator provides otherwise, vesting of Awards granted hereunder shall be suspended during any unpaid leave of absence. A Holder shall not cease to be considered an Employee, Non-Employee Director or Consultant, as applicable, in the case of any (a) leave of absence approved by the Company, (b) transfer between locations of the Company or between the Company and any of its Affiliates or any successor thereof, or (c) change in status (Employee to Director, Employee to Consultant, etc.), provided that such change does not affect the specific terms applying to the Holder's Award.

## ARTICLE 13.

## ADMINISTRATION

13.1 Administrator. The Committee (or another committee or a subcommittee of the Board or the Compensation Committee of the Board assuming the functions of the Committee under the Plan) shall administer the Plan (except as otherwise permitted herein) and, unless otherwise determined by the Board, shall consist solely of two (2) or more Non-Employee

Directors appointed by and holding office at the pleasure of the Board, each of whom is intended to qualify as both a "non-employee director" as defined by Rule 16b-3 of the Exchange Act or any successor rule, an "outside director" for purposes of Section 162(m) of the Code and an "independent director" under the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded; provided that any action taken by the Committee shall be valid and effective, whether or not members of the Committee at the time of such action are later determined not to have satisfied the requirements for membership set forth in this Section 13.1 or otherwise provided in any charter of the Committee. Except as may otherwise be provided in any charter of the Committee, appointment of Committee members shall be effective upon acceptance of appointment. Committee members may resign at any time by delivering written or electronic notice to the Board. Vacancies in the Committee may only be filled by the Board. Notwithstanding the foregoing, (a) the full Board, acting by a majority of its members in office, shall conduct the general administration of the Plan with respect to Awards granted to Non-Employee Directors and, with respect to such Awards, the terms "Administrator" and "Committee" as used in the Plan shall be deemed to refer to the Board and (b) the Board or Committee may delegate its authority hereunder to the extent permitted by Section 13.6 hereof.

13.2 Duties and Powers of Administrator. It shall be the duty of the Administrator to conduct the general administration of the Plan in accordance with its provisions. The Administrator shall have the power to interpret the Plan, any Program and any Award Agreement, and to adopt such rules for the administration, interpretation and application of the Plan as are not inconsistent therewith, to interpret, amend or revoke any such rules and to amend any Program or Award Agreement; provided that the rights or obligations of the Holder of any Award that is the subject of any such Program or Award Agreement are not affected materially and adversely by such amendment, unless the consent of the Holder is obtained or such amendment is otherwise permitted under Section 14.10 hereof. Any such grant or award under the Plan need not be administered or interpreted the same with respect to each Holder. Any such interpretations and rules with respect to Incentive Stock Options shall be consistent with the provisions of Section 422 of the Code. In its sole discretion, the Board may at any time and from time to time exercise any and all rights and duties of the Committee under the Plan except with respect to matters which under Rule 16b-3 under the Exchange Act or any successor rule, or Section 162(m) of the Code, or any regulations or rules issued thereunder, or the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded are required to be determined in the sole discretion of the Committee.

13.3 Action by the Committee. Unless otherwise established by the Board or in any charter of the Committee, a majority of the Committee shall constitute a quorum and the acts of a majority of the members present at any meeting at which a quorum is present, and acts approved in writing by all members of the Committee in lieu of a meeting, shall be deemed the acts of the Committee. Each member of the Committee is entitled to, in good faith, rely or act upon any report or other information furnished to that member by any officer or other employee of the Company or any Affiliate, the Company's independent certified public accountants, or any executive compensation consultant or other professional retained by the Company to assist in the administration of the Plan.



13.4 Authority of Administrator. Subject to the Company's Bylaws, the Committee's Charter and any specific designation in the Plan, the Administrator has the exclusive power, authority and sole discretion to:

(a) Designate Eligible Individuals to receive Awards;

(b) Determine the type or types of Awards to be granted to each Eligible Individual;

(c) Determine the number of Awards to be granted and the number of Shares to which an Award will relate;

(d) Determine the terms and conditions of any Award granted pursuant to the Plan, including, but not limited to, the exercise price, grant price, purchase price, any performance criteria, any restrictions or limitations on the Award, any schedule for vesting, lapse of forfeiture restrictions or restrictions on the exercisability of an Award, and accelerations or waivers thereof, and any provisions related to non-competition and recapture of gain on an Award, based in each case on such considerations as the Administrator in its sole discretion determines;

(e) Determine whether, to what extent, and pursuant to what circumstances an Award may be settled in, or the exercise price of an Award may be paid in cash, Shares, other Awards or other property, or an Award may be canceled, forfeited, or surrendered;

(f) Prescribe the form of each Award Agreement, which need not be identical for each Holder;

(g) Decide all other matters that must be determined in connection with an Award;

(h) Establish, adopt, or revise any rules and regulations as it may deem necessary or advisable to administer the Plan;

(i) Interpret the terms of, and any matter arising pursuant to, the Plan, any Program or any Award Agreement;

(j) Make all other decisions and determinations that may be required pursuant to the Plan or as the Administrator deems necessary or advisable to administer the Plan; and

(k) Accelerate wholly or partially the vesting or lapse of restrictions of any Award or portion thereof at any time after the grant of an Award, subject to whatever terms and conditions it selects and Sections 3.4 and 14.2(d) hereof.

13.5 Decisions Binding. The Administrator's interpretation of the Plan, any Awards granted pursuant to the Plan, any Program, any Award Agreement and all decisions and



determinations by the Administrator with respect to the Plan are final, binding, and conclusive on all parties.

13.6 Delegation of Authority. To the extent permitted by Applicable Law, the Board or Committee may from time to time delegate to a committee of one or more members of the Board or one or more officers of the Company the authority to grant or amend Awards or to take other administrative actions pursuant to Article 13; provided, however, that in no event shall an officer of the Company be delegated the authority to grant awards

to, or amend awards held by, the following individuals: (a) individuals who are subject to Section 16 of the Exchange Act, (b) Covered Employees, or (c) officers of the Company (or Directors) to whom authority to grant or amend Awards has been delegated hereunder; provided, further, that any delegation of administrative authority shall only be permitted to the extent it is permissible under Section 162(m) of the Code and Applicable Law. Any delegation hereunder shall be subject to the restrictions and limits that the Board or Committee specifies at the time of such delegation, and the Board may at any time rescind the authority so delegated or appoint a new delegatee. At all times, the delegatee appointed under this Section 13.6 shall serve in such capacity at the pleasure of the Board and the Committee.

## ARTICLE 14.

## MISCELLANEOUS PROVISIONS

14.1 Amendment, Suspension or Termination of the Plan. Except as otherwise provided in this Section 14.1, the Plan may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Board or the Committee. However, without approval of the Company's stockholders given within twelve (12) months before or after the action by the Administrator, no action of the Administrator may, except as provided in Section 14.2 hereof, increase the limits imposed in Section 3.1 hereof on the maximum number of Shares which may be issued under the Plan or the individual Award limits specified in Section 3.3 hereof or take any action prohibited under Section 12.6 hereof. Except as provided in Section 14.10 hereof, no amendment, suspension or termination of the Plan shall, without the consent of the Holder, materially and adversely affect any rights or obligations under any Award theretofore granted or awarded, unless the Award itself otherwise expressly so provides. No Awards may be granted or awarded during any period of suspension or after termination of the Plan, and in no event may any Incentive Stock Option be granted under the Plan after the tenth ($10^{th}$) anniversary of the Effective Date.

14.2 Changes in Common Stock or Assets of the Company, Acquisition or Liquidation of the Company and Other Corporate Events.

(a) In the event of any stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the shares of the Company's stock or the share price of the Company's stock other than an Equity Restructuring, the Administrator may make equitable adjustments, if any, to reflect such change with respect to (i) the aggregate number and kind of shares that may be issued under the Plan (including, but not limited to, adjustments of the limitations in Sections 3.1 and 3.3 hereof on the maximum number



and kind of shares which may be issued under the Plan); (ii) the number and kind of Shares (or other securities or property) subject to outstanding Awards; (iii) the number and kind of Shares (or other securities or property) for which grants are subsequently to be made to new and continuing Non-Employee Directors pursuant to Section 4.6 hereof; (iv) the terms and conditions of any outstanding Awards (including, without limitation, any applicable performance targets or criteria with respect thereto); and (v) the grant or exercise price per share for any outstanding Awards under the Plan. Any adjustment affecting an Award intended as Performance-Based Compensation shall be made consistent with the requirements of Section 162(m) of the Code.

(b) In the event of any transaction or event described in Section 14.2(a) hereof or any unusual or nonrecurring transactions or events affecting the Company, any Affiliate of the Company, or the financial statements of the Company or any Affiliate, or of changes in Applicable Law, the Administrator, in its sole discretion, and on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to the occurrence of such transaction or event and either automatically or upon the Holder's request, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to any Award under the Plan, to facilitate such transactions or events or to give effect to such changes in laws, regulations or principles:

(i) To provide for either (A) termination of any such Award in exchange for an amount of cash and/or other property, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Holder's rights (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction or event described in this Section 14.2 the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Holder's rights, then such Award may be terminated by the Company without payment) or (B) the replacement of such Award with other rights or property selected by the Administrator in its sole discretion having an aggregate value not exceeding the amount that could have been attained upon the exercise of such Award or realization of the Holder's rights had such Award been currently exercisable or payable or fully vested;

(ii) To provide that such Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar options, rights or awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and prices;

(iii) To make adjustments in the number and type of shares of the Company's stock (or other securities or property) subject to outstanding Awards, and in the number and kind of outstanding Restricted Stock or Deferred Stock and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Awards and Awards which may be granted in the future;



(iv) To provide that such Award shall be exercisable or payable or fully vested with respect to all shares covered thereby, notwithstanding anything to the contrary in the Plan or the applicable Program or Award Agreement; and

(v) To provide that the Award cannot vest, be exercised or become payable after such event.

(c) In connection with the occurrence of any Equity Restructuring, and notwithstanding anything to the contrary in Sections 14.2(a) and 14.2(b) hereof:

(i) The number and type of securities subject to each outstanding Award and the exercise price or grant price thereof, if applicable, shall be equitably adjusted; and/or

(ii) The Administrator shall make such equitable adjustments, if any, as the Administrator in its discretion may deem appropriate to reflect such Equity Restructuring with respect to the aggregate number and kind of shares that may be issued under the Plan (including, but not limited to, adjustments of the limitations in Sections 3.1 and 3.3 hereof on the maximum number and kind of shares which may be issued under the Plan).

The adjustments provided under this Section 14.2(c) shall be nondiscretionary and shall be final and binding on the affected Holder and the Company.

(d) Change in Control.

(i) Notwithstanding any other provision of the Plan, in the event of a Change in Control, each outstanding Award shall be assumed or an equivalent Award substituted by the successor corporation or a parent or subsidiary of the successor corporation, in each case, as determined by the Administrator.

(ii) In the event that the successor corporation in a Change in Control and its parents and subsidiaries refuse to assume or substitute for any Award in accordance with Section 14.2(d)(i) hereof or it is otherwise determined that Awards shall not be so assumed or substituted, each such non-assumed/substituted Award, except for any Performance Awards, shall become fully vested and, as applicable, exercisable and shall be deemed exercised, immediately prior to the consummation of such transaction, and all forfeiture restrictions on any or all such Awards shall lapse at such time. For the avoidance of doubt, the vesting of any Performance Awards not assumed in a Change in Control will not be automatically accelerated pursuant to this Section 14.2(d)(ii) and will instead vest pursuant to the terms and conditions of the applicable Award Agreement upon a Change in Control where the successor corporation and its parents and subsidiaries refuse to assume or substitute for any Award in accordance with Section 14.2(d)(i) hereof. If an Award vests and, as applicable, is exercised in lieu of assumption or substitution in connection with a Change in Control, the Administrator shall notify the Holder of such vesting and any applicable exercise period, and the Award shall terminate upon the Change in Control. For the avoidance of doubt, if the value of an Award that is terminated in connection with this Section 14.2(d)(ii) is zero or negative at the time of such Change in Control, such Award shall be terminated upon the Change in Control without payment of consideration therefor.



(iii) Notwithstanding anything to the contrary, in the event that, within the twelve (12) month period immediately following a Change in Control, a Holder experiences a Termination of Service by the Company for other than Cause or by the Holder for Good Reason, then the vesting and, if applicable, exercisability of one hundred percent (100%) of the then-unvested Shares (or other securities or property) subject to the outstanding Awards held by such Holder shall accelerate upon the date of such Termination of Service.

(e) The Administrator may, in its sole discretion, include such further provisions and limitations in any Award, agreement or certificate, as it may deem equitable and in the best interests of the Company that are not inconsistent with the provisions of the Plan.

(f) With respect to Awards which are granted to Covered Employees and are intended to qualify as Performance-Based Compensation, no adjustment or action described in this Section 14.2 or in any other provision of the Plan shall be authorized to the extent that such adjustment or action would cause such Award to fail to so qualify as Performance-Based Compensation, unless the Administrator determines that the Award should not so qualify. No adjustment or action described in this Section 14.2 or in any other provision of the Plan shall be authorized to the extent that such adjustment or action would cause the Plan to violate Section 422(b)(1) of the Code. Furthermore, no such adjustment or action shall be authorized to the extent such adjustment or action would result in short-swing profits liability under Section 16 of the Exchange Act or violate the exemptive conditions of Rule 16b-3 of the Exchange Act unless the Administrator determines that the Award is not to comply with such exemptive conditions.

(g) No action shall be taken under this Section 14.2 which shall cause an Award to fail to be exempt from or comply with Section 409A of the Code or the Treasury Regulations thereunder.

(h) The existence of the Plan, any Program, the Award Agreement and the Awards granted hereunder shall not affect or restrict in any way the right or power of the Company or the stockholders of the Company to make or authorize any adjustment, recapitalization, reorganization or other change in the Company's capital structure or its business, any merger or consolidation of the Company, any issue of stock or of options, warrants or rights to purchase stock or of bonds, debentures, preferred or prior preference stocks whose rights are superior to or affect the Common Stock or the rights thereof or which are convertible into or exchangeable for Common Stock, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding, whether of a similar character or otherwise.

(i) In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the Shares or the share price of the Common Stock including any Equity Restructuring, for reasons of administrative convenience, the Company in its sole discretion may refuse to permit the exercise of any Award during a period of up to thirty (30) days prior to the consummation of any such transaction.



14.3 Approval of Plan by Stockholders. The Plan will be submitted for the approval of the Company's stockholders within twelve (12) months after the date of the Board's initial adoption of the Plan. Awards may be granted or awarded prior to such stockholder approval; provided that such Awards shall not be exercisable, shall not vest and the restrictions thereon shall not lapse and no Shares shall be issued pursuant thereto prior to the time when the Plan is approved by the stockholders; and provided, further, that if such approval has not been obtained at the end of said twelve (12) month period, all Awards previously granted or awarded under the Plan shall thereupon be canceled and become null and void.

14.4 No Stockholders Rights. Except as otherwise provided herein, a Holder shall have none of the rights of a stockholder with respect to Shares covered by any Award until the Holder becomes the record owner of such Shares.

14.5 Paperless Administration. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the documentation, granting or exercise of Awards, such as a system using an internet website or interactive voice response, then the paperless documentation, granting or exercise of Awards by a Holder may be permitted through the use of such an automated system.

14.6 Effect of Plan upon Other Compensation Plans. The adoption of the Plan shall not affect any other compensation or incentive plans in effect for the Company or any Affiliate. Nothing in the Plan shall be construed to limit the right of the Company or any Affiliate: (a) to establish any other forms of incentives or compensation for Employees, Directors or Consultants of the Company or any Affiliate, or (b) to grant or assume options or other rights or awards otherwise than under the Plan in connection with any proper corporate purpose including without limitation, the grant or assumption of options in connection with the acquisition by purchase, lease, merger, consolidation or otherwise, of the business, stock or assets of any corporation, partnership, limited liability company, firm or association.

14.7 Compliance with Laws. The Plan, the granting and vesting of Awards under the Plan and the issuance and delivery of Shares and the payment of money under the Plan or under Awards granted or awarded hereunder are subject to compliance with all Applicable Law, and to such approvals by any listing, regulatory or governmental authority as may, in the opinion of counsel for the Company, be necessary or advisable in connection therewith. Any securities delivered under the Plan shall be subject to such restrictions, and the person acquiring such securities shall, if requested by the Company, provide such assurances and representations to the Company as the Company may deem necessary or desirable to assure compliance with all Applicable Law. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to such Applicable Law.

14.8 Titles and Headings, References to Sections of the Code or Exchange Act. The titles and headings of the Sections in the Plan are for convenience of reference only and, in the event of any conflict, the text of the Plan, rather than such titles or headings, shall control. References to sections of the Code or the Exchange Act shall include any amendment or successor thereto.



14.9 Governing Law. The Plan and any agreements hereunder shall be administered, interpreted and enforced under the internal laws of the State of Delaware without regard to conflicts of laws thereof or of any other jurisdiction.

14.10 Section 409A. To the extent that the Administrator determines that any Award granted under the Plan is subject to Section 409A of the Code, any Program pursuant to which such Award is granted and the Award Agreement evidencing such Award shall incorporate the terms and conditions required by Section 409A of the Code. To the extent applicable, the Plan, any Program and any Award Agreements shall be interpreted in accordance with Section 409A of the Code and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date. Notwithstanding any provision of the Plan to the contrary, in the event that following the Effective Date the Administrator determines that any Award may be subject to Section 409A of the Code and related Department of Treasury guidance (including such Department of Treasury guidance as may be issued after the Effective Date), the Administrator may adopt such amendments to the Plan and the applicable Program and Award Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Administrator determines are necessary or appropriate to (a) exempt the Award from Section 409A of the Code and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or (b) comply with the requirements of Section 409A of the Code and related Department of Treasury guidance and thereby avoid the application of any penalty taxes under such Section.

14.11 No Rights to Awards. No Eligible Individual or other person shall have any claim to be granted any Award pursuant to the Plan, and neither the Company nor the Administrator is obligated to treat Eligible Individuals, Holders or any other persons uniformly.

14.12 Unfunded Status of Awards. The Plan is intended to be an “unfunded” plan for incentive compensation. With respect to any payments not yet made to a Holder pursuant to an Award, nothing contained in the Plan or any Program or Award Agreement shall give the Holder any rights that are greater than those of a general creditor of the Company or any Affiliate.

14.13 Indemnification. To the extent allowable pursuant to Applicable Law, each member of the Committee or of the Board and any officer or other employee to whom authority to administer any component of the Plan is delegated shall be indemnified and held harmless by the Company from any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by such member in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action or failure to act pursuant to the Plan and against and from any and all amounts paid by him or her in satisfaction of judgment in such action, suit, or proceeding against him or her; provided he or she gives the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled pursuant to the Company’s



Certificate of Incorporation or Bylaws, as a matter of law, or otherwise, or any power that the Company may have to indemnify them or hold them harmless.

14.14 Relationship to other Benefits. No payment pursuant to the Plan shall be taken into account in determining any benefits under any pension, retirement, savings, profit sharing, group insurance, welfare or other benefit plan of the Company or any Affiliate except to the extent otherwise expressly provided in writing in such other plan or an agreement thereunder.

14.15 Expenses. The expenses of administering the Plan shall be borne by the Company and its Affiliates.

* * * * *

I hereby certify that the foregoing Plan was duly adopted by the Board of Directors of Corvus Pharmaceuticals, Inc. on December 31, 2015.

* * * * *

I hereby certify that the foregoing Plan was approved by the stockholders of Corvus Pharmaceuticals, Inc. on , 2016.

Executed on this day of , 2016.

Leiv Lea
Chief Financial Officer

**Exhibit 10.13(a)**

Execution Copy

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**LICENSE AGREEMENT**

**Dated**

**February 25, 2015**

**(1) Vernalis (R&D) Limited**
**(2) Corvus Pharmaceuticals, Inc.**

---

**CONTENTS**

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.





[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**This License Agreement is made the 25th day of February, 2015**

**Between:**

(1) **Vernalis (R&D) Limited** whose principal place of business is 100 Berkshire Place, Wharfedale Road, Winnersh, Berkshire, RG41 5RD, UK ("**Vernalis**"); and

(2) **Corvus Pharmaceuticals, Inc.** whose principal place of business is at 863 Mitten Road, Suite 102, Burlingame, CA. 94010 USA ("**Corvus**").

**Whereas:**

(A) Vernalis is a publicly listed, UK-headquartered biopharmaceutical company and Corvus is a private, venture capital backed biotechnology company located in California, US.

(B) Vernalis has exclusive, sub-licensable rights in the Adenosine Receptor Antagonists ([***]) (both as defined below) and related intellectual property rights, which have been discovered and developed by Vernalis and its previous collaborator, [***]. In particular, Vernalis has developed an Adenosine Receptor Antagonist known as V81444 which entered a Phase Ib/II proof of concept study in July 2013.

(C) Corvus now wishes to Develop and Commercialize (both as defined below) the Adenosine Receptor Antagonists ([***]) as a means of diagnosing, preventing or treating human diseases or conditions, such as but not limited to tumors, cancers and associated conditions and inflammation, and Vernalis wishes to grant Corvus an exclusive license under its intellectual property rights covering the Adenosine Receptor Antagonists ([***]) to do the same.

**It is now agreed as follows:**

**1 Definitions**

1.1 In this Agreement the following definitions shall apply unless the context requires otherwise:

"**Adeno VII Patent Rights**" means the Patent Rights listed at Part A of Schedule 1, [***] (including its use, formulation and synthesis/manufacture), or any Patent Right deriving priority from such Patent Rights. For the avoidance of doubt, it is acknowledged that a claim of any such Patent Rights may cover [***]. For any such claim, [***], and the remainder of such claim falls within the definition of Adeno VII Patent Rights.

**"Adenosine Receptor Antagonist"** means a small molecule that binds selectively to an adenosine receptor, as measured *in vitro* or *in vivo* in any species. For clarity, V81444 is an Adenosine Receptor Antagonist.

"**Affiliate**" means any company, partnership or other business entity that Controls, is Controlled by or is under common Control with either Party from time to time.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

"**Agreement**" means this document and any and all schedules, appendices and other addenda to it as may be varied from time to time in accordance with the provisions of this agreement.

"**ANDA Act**" has the meaning attributed to it in Clause 8.4.

"**Annual**" means per calendar year.

"**Applicable Law**" means any present or future law, regulation, directive, instruction, direction or rule of any Government Authority or Regulatory Authority including any amendment, extension or replacement thereof which is from time to time in force.

[***] has the meaning attributed to it in Clause 9.2.7.

"**Business Day**" means 9.00 am to 5.00 pm local time on a day other than a Saturday, Sunday, bank or other public holiday in England and Wales or the State of California.

"**Clinical Trial**" means any Phase I Clinical Trial, Phase II Clinical Trial, Phase III Clinical Trial, Pivotal Clinical Trial, or any other clinical trial or study in human subjects or patients.

"**Combination Product**" means a Licensed Product which also [***].

"**Commencement Date**" means the date stated at the start of this Agreement.

"**Commercialization**" means all activities relating to the commercial Exploitation of the Licensed Products, including without limitation the export, import, promotion, marketing (including pre-launch, post-launch marketing and marketing research), conducting post approval clinical trials, detailing, distribution, pricing and reimbursement, storage, handling, preparation for sale, offering for sale and selling, customer service and support, adverse events reporting and interacting and communicating with Regulatory Authorities in relation to a Licensed Product. When used as a verb, "**to Commercialize**" and "**Commercializing**" means to engage in Commercialization, and "**Commercialized**" has a corresponding meaning.

"**Commercially Reasonable Efforts**" means, with respect to the performance of Development or Commercialization activities with respect to Vernalis Licensed Compound or Licensed Product by Corvus, directly or through its Affiliates or Sublicensees, the carrying out of such activities in a sustained and diligent manner, using efforts and resources comparable to the efforts and resources commonly used by companies with similar financial resources and expertise in the pharmaceutical industry for compounds or products of similar market potential at a similar stage in development or product life. "Commercially Reasonable Efforts"





shall be [***], including any [***], and without regard to [***].

"**Confidential Disclosure Agreement**" means the confidential disclosure agreement between Vernalis and Corvus dated 22 October 2014.

"**Confidential Information**" means (a) information disclosed by either Party to the other Party prior to the Commencement Date pursuant to the Confidential Disclosure Agreement, which will be the Confidential Information of the disclosing Party, (b) the terms of this Agreement, which will be the Confidential Information of both Parties (and each Party shall be treated as both a disclosing Party and receiving Party with respect thereto), (c) Vernalis Know How, which shall be the Confidential Information of Vernalis, (d) Corvus Arising Know How and Corvus Background Know How, which shall be the Confidential Information of Corvus, and (e) any technical, business, or other information, including (i) information relating to the scientific, regulatory or business affairs or other activities of a Party, and (ii) information relating to Vernalis Licensed Compound or Licensed Product, and any Exploitation of Vernalis Licensed Compound or Licensed Product, and any Know How with respect thereto, in each of (i) and (ii) that is disclosed by or on behalf of one Party or its Affiliates to the other Party in connection with this Agreement, whether prior to, on, or after the Commencement Date, which shall be the Confidential Information of the disclosing Party.

"**Control**" means the ownership either directly or indirectly of 50% or more of the issued share capital or any comparable equity or ownership interest with respect to a business entity or the legal power to direct or cause the direction of the general management and policies of the party in question.

"**Corvus Arising IP**" means Corvus Arising Know How and Corvus Arising Patent Rights.

"**Corvus Arising Know How**" means all Know How owned by or licensed to Corvus after the Commencement Date at any time during the Term that is necessary or useful to Exploit Vernalis Licensed Compound or Licensed Product (but excluding Vernalis Know How).

"**Corvus Arising Patent Rights**" means Patent Rights owned by or licensed to Corvus after the Commencement Date at any time during the Term which cover a Vernalis Licensed Compound or a Licensed Product or claim the Corvus Know How, but excluding always Vernalis Patent Rights.

"**Corvus Background IP**" means Corvus Background Know How and Corvus Background Patent Rights.

"**Corvus Background Know How**" means all Know How owned by or licensed to Corvus as at the Commencement Date that is necessary or useful to Exploit

Vernalis Licensed Compound or Licensed Product (but excluding Vernalis Know How).

"**Corvus Background Patent Rights**" means Patent Rights owned by or licensed to Corvus as at the Commencement Date which cover a Vernalis Licensed Compound or a Licensed Product or claim the Corvus Background Know How, but excluding always Vernalis Patent Rights.

"**Corvus IP**" means Corvus Background IP and Corvus Arising IP.

"**Corvus Know How**" means all Corvus Background Know How and Corvus Arising Know How.

"**Corvus Patent Rights**" means all Corvus Background Patent Rights and Corvus Arising Patent Rights.

"**Development**" means all activities conducted in connection with obtaining Marketing Authorizations for Licensed Products, including without limitation research, pre-clinical and other non-clinical testing, test method development and stability testing, toxicology, formulation, process development, manufacturing scale-up, qualification and validation, quality assurance, quality control, clinical studies, including manufacturing in support thereof, statistical analysis and report writing, the preparation and submission of applications for Marketing Authorizations, the regulatory affairs with respect to the foregoing and all other activities necessary or reasonably useful or otherwise requested or required by a Regulatory Authority as a condition or in support of obtaining or maintaining a Marketing Authorization. When used as a verb, "**Develop**" means to engage in Development.

"**Documents**" means reports, research notes, charts, graphs, comments, computations, analyses, recordings, photographs, paper, notebooks, books, files, ledgers, records, tapes, discs, diskettes, CD-ROM, computer programs and documents thereof, computer information storage means, samples of material, other graphic or written data and any other media on which Know How can be permanently stored.

"**EMA**" means the European Medicines Agency or any successor agency thereto.

"**Europe**" means all the countries for which the EMA is responsible for the protection and promotion of public health through the evaluation and supervision of medicines for human use, as may be amended from time to time.

"**Field**" means all fields of use.

"**Exploit**" means to make, have made, use, have used, Develop, Commercialize, Manufacture, have Manufactured, hold, or keep (whether for disposal or otherwise), transport, distribute or otherwise dispose of any Vernalis Licensed Compound or Licensed Product.

"**First Commercial Sale**" means, with respect to a Licensed Product and a country, the first sale for monetary value for use or consumption by any Third





Party after a Marketing Authorization is granted for such Licensed Product in such country. A sale of Licensed Product which is being tested or investigated for an indication not covered by a Marketing Authorization for use in a clinical trial shall not constitute a commercial sale for the purposes of this definition.

"**Force Majeure Event**" has the meaning attributed to it in Clause 15.

"**Generic Competition**" has the meaning attributed to it in Clause 8.4.

"**Good Manufacturing Practice**" or "**GMP**" means manufacture in accordance with:

(a) Directive 91/412/EEC and Directive 2003/94/EC or any other applicable European Community legislation or regulation as amended and applicable from time to time;

(b) the current principles and guidelines of good manufacturing practice for medicinal products for human use and "substantial conformity with good manufacturing requirements" (as such phrase is used in Section 802(f)(1) of the Federal Food, Drug and Cosmetic Act, such Act may be amended from time to time);

(c) US Code of Federal Regulations, Title 21, Part 210 (Current Good Manufacturing Practice in Manufacturing, Processing, Packaging or Holding of Drugs), Part 211 (Current Good Manufacturing Practice for Finished Pharmaceuticals); and

(d) the equivalent law or regulation in any Major Market.

"**Government Authority**" means any national or supranational agency, authority, department of any government of any country having jurisdiction over any of the activities contemplated by this Agreement or over the Parties, including the European Commission.

"**IND**" means an investigational new drug application filed with the United States Food and Drug Administration (or any successor agency thereto) prior to beginning clinical trials in humans, or any comparable application filed with the Regulatory Authority of a country other than the United States prior to beginning trials in humans in that country.

"**Indemnification Claim Notice**" has the meaning attributed to it in Clause 10.3.

"**Indemnified Party**" has the meaning attributed to it in Clause 10.3.

"**Know How**" means technical and other information which is not in the public domain, including information comprising or relating to concepts, discoveries, data, designs, formulae, ideas, inventions, methods, models, assays, research plans, procedures, designs for experiments and tests and results of experimentation and testing (including results of research or development), processes (including Manufacturing processes, specifications and techniques), laboratory records, chemical, pharmacological, toxicological, clinical, analytical and quality control data, trial data, case report forms, data analyses, reports,





Manufacturing data or summaries and information contained in submissions to and information from ethical committees and Regulatory Authorities. Know How includes Documents containing Know How, including but not limited to any rights including trade secrets, copyright, database or design rights protecting such Know How. The fact that an item is known to the public shall not be taken to preclude the possibility that a compilation including the item, or a development relating to the item, is not known to the public.

"**Licensed Product**" means any pharmaceutical product containing a Vernalis Licensed Compound or an Adenosine Receptor Antagonist compound that has been developed using Vernalis Licensed IP, each in any and all forms, presentations, delivery systems, dosages, and formulations.

"**Licensed Product Infringement**" has the meaning attributed to it in Clause 8.3.

"**Losses**" has the meaning attributed to it in Clause 10.1.

"**Major [***] Markets**" means [***].

"**Major [***] Markets**" means the [***].

"**Major Markets**" means the [***].

"**Manufacture**" and "**Manufacturing**" means all activities related to the production, manufacture, processing, filling, finishing, packaging, labelling, shipping, and storage of any Vernalis Licensed Compound, any Licensed Product, or any intermediate thereof, including process development, process qualification and validation, scale-up, pre-clinical, clinical and commercial manufacture and analytic development, product characterization, stability testing, quality assurance, and quality control.

"**Marketing Authorization**" means the approval of an NDA or sNDA submitted to the Food and Drug Administration for the marketing of a Licensed Product in the United States, or with respect to any other country in the Territory, any and all approvals required from any Regulatory Authority to market a Licensed Product in that country.

"**Milestones**" has the meaning attributed to it in Clause 6.2.1.

"**NDA**" means a new drug application filed with the Food and Drug Administration for a Licensed Product in the USA, or any comparable application filed with the Regulatory Authorities of any other country in the Territory (or any Regulatory Authority covering that country in the case of a supranational Regulatory Authority) to obtain all approvals necessary to market a Licensed Product in that country.

"**Net Sales**" means the gross amounts invoiced by Corvus, its Sublicensees or its or their Affiliates, for all sales of Licensed Product less the following items to the





extent that they are paid or actually allowed and are shown on the relevant invoice:

(a) quantity, trade or cash discounts actually granted for such Licensed Product;

(b) amounts repaid or credited and allowances including cash, credit or free goods allowances, given by reason of chargebacks, retroactive price reductions or billing errors and rebates (including government-mandated rebates) for such Licensed Product;

(c) amounts refunded or credited for Licensed Product which was rejected, spoiled, damaged, outdated or returned;

(d) freight, shipment and insurance costs incurred transporting Licensed Product to a Third Party purchaser; and

(e) taxes, tariffs, customs duties and surcharges and other governmental charges incurred in connection with the sale, exportation or importation of Licensed Product;

provided always that sums under (a) to (e) shall be calculated in accordance with generally accepted accounting principles, or international financial reporting standards, consistently applied.

The transfer of Licensed Product by (i) Corvus or a Sublicensee or one of its or their Affiliates to an Affiliate of such party, (ii) Corvus or an Affiliate to a Sublicensee or (iii) a Sublicensee to a further tier Sublicensee shall not be considered a sale. In such cases Net Sales shall be determined based on the invoiced sale price by the Affiliate (in the case of (i)), the Sublicensee (in the case of (ii)) or the further tier Sublicensee (in the case of (iii)) to the first third party arm's-length trade purchaser, less the deductions allowed under this definition.

Subject to the following paragraph, upon any sale or other disposal of Licensed Product by or on behalf of Corvus, Sublicensees or its or their Affiliates other than a bona fide arm's length transaction exclusively for money, such sale or other disposal shall [***]. Transfers or dispositions of Licensed Product by Corvus or Sublicensees or their Affiliates as free promotional or advertising samples or charitable donations, or under its or their patient assistance programs, in each case to the extent provided for no monetary or other consideration, shall not be considered in determining Net Sales under this definition provided that in each case, such transfers or dispositions are in quantities common in the industry for the type of product. Notwithstanding the foregoing, the transfer for free or at cost (of goods and commercially reasonable overheads) of Licensed Products for use in clinical trials, or provided on a named patient or compassionate use basis for an indication(s) not covered by a Marketing Authorization(s), shall not be included in Net Sales.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



In the event the Licensed Product is sold in a Combination Product, the Net Sales shall be determined as follows:

[***]

provided that if, in a specific country: (a) A is known but the other therapeutically active ingredient(s) in such Combination Product are not sold separately in that country in products with the same quantity of active ingredient, Net Sales shall be adjusted by multiplying actual Net Sales of such Combination Product by the fraction A/C, where C is the invoice price in that country of that Combination Product; or (b) B is known but a Licensed Product containing the same amount of such Vernalis Licensed Compound is not sold separately in that country, Net Sales shall be calculated by multiplying actual Net Sales of such Combination Product by the fraction (C-B)/C. If, in a specific country, A and B are not known, the allocation of Net Sales for such Combination Product shall be negotiated by the Parties in good faith.

[***].

"**Non-Adeno VII Patent Rights**" means the Patent Rights listed at Part B of Schedule 1 or any Patent Right deriving priority from such Patent Rights.

"**Non-Oncology Indication**" means a clinical indication (or potential indication) other than an Oncology Indication. A Non-Oncology Indication will be determined to be different from another such indication if [***].

"**Oncology Indication**" means a clinical indication (or potential indication) for the prevention, diagnosis or treatment of a cancerous condition. One Oncology Indication will be different from another such indication if a [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



"**Party**" means Corvus and Vernalis and "**Parties**" shall be construed accordingly.

"**Patent Rights**" means patent applications and patents, and all foreign counterparts thereof in all countries, including any renewals, re-examinations, continuations, continuations-in-part, divisionals, patents of addition, extensions, (including patent term extensions,) reissues, substitutions, confirmations, and any equivalents of the foregoing in any and all countries of or to any of them, as well as any supplementary protection certificates, and equivalent protection rights in respect of any of them.

**"Phase I Clinical Trial"** means a human clinical trial normally conducted in healthy volunteers or diseased patients with the aim of determining the pharmacokinetics, pharmacodynamics, early safety profile and some preliminary evidence of efficacy if conducted in patients. Phase I Clinical Trials in Oncology Indications [***]. For the avoidance of doubt, a Phase I Clinical Trial does not include studies where the [***]. Any trial with [***].

"**Phase II Clinical Trial**" means a human clinical trial where a product is tested in a limited number of diseased patients and possibly also healthy subjects for the purpose of determining an initial indication of efficacy of a product for a therapeutic or prophylactic use, an indication, or to perform dose ranging, additional pharmacokinetics and pharmacodynamics or obtain expanded evidence of safety.

"**Phase III Clinical Trial**" means a controlled, multicentre, human clinical trial conducted in a sufficient number of patients to establish safety or statistically significant efficacy in the particular indication tested.

"**Pivotal Clinical Trial**" means a pivotal human clinical trial conducted in a sufficient number of patients to establish safety or efficacy in the particular indication tested, the data and results of which are intended to be used as part of a basis for seeking Marketing Authorization in any country.

"**Quarter**" means each period of three months ending on 31 March, 30 June, 30 September or 31 December and "Quarterly" shall be construed accordingly.

"[***] **Sub-License**" means the [***] specific sub-license of the Adeno VII Patent Rights between Vernalis and [***].

"**Regulatory Authority**" means any national, supranational (including the European Commission, the Council of the European Union, and the EMA), regional, state or local regulatory agency, department, bureau, commission, council or other governmental entity including the United States Food and Drug Administration, in



each country involved in the granting of Marketing Authorizations or pricing approvals for Licensed Product.

"**Royalty Term**" has the meaning attributed to it in Clause 6.4.2.

"**Royalties**" has the meaning attributed to it in Clause 6.4.1.

"**Sales Milestones**" has the meaning attributed to it in Clause 6.3.1.

"**Sales Milestone Table**" has the meaning attributed to it in Clause 6.3.1.

"**sNDA**" means a supplemental new drug application filed with the Food and Drug Administration to obtain a supplemental Marketing Authorisation for a Licensed Product in the USA, or any comparable application filed with the Regulatory Authorities of any other Major Market (or any Regulatory Authority covering that Major Market in the case of a supranational Regulatory Authority) to obtain a supplemental Marketing Authorisation for a Licensed Product in or covering that Major Market.

"**Sublicensee**" has the meaning attributed to it in Clause 2.2.1.

"**Territory**" means the world.

"**Term**" has the meaning attributed to it in Clause 12.1.

"**Third Party**" means a person or entity other than (a) Corvus or (b) Vernalis or an Affiliate of either of them.

"**Third Party Claims**" has the meaning attributed to it in Clause 10.1.

"**United States GAAP**" means the generally accepted accounting principles in the United States as developed and maintained by the Financial Accounting Standards Board or any successor body thereto.

"**USD**" means United States Dollars.

"**Valid Claim**" means (a) a claim of any issued and unexpired Patent Rights (but excluding patent applications) whose validity, enforceability, or patentability has not been affected by any of the following: (i) irretrievable lapse, abandonment, revocation, dedication to the public, or disclaimer; or (ii) a holding, finding, or decision of invalidity, unenforceability, or non-patentability by a court, Government Authority, national or regional patent office, or other appropriate body that has competent jurisdiction, such holding, finding, or decision being final and unappealable or unappealed within the time allowed for appeal; or (b) a claim of a pending application included within Patent Rights that was filed and is being prosecuted in good faith and has not been abandoned or finally disallowed without the possibility of appeal or re-filing of the application; provided that such pending application has not been pending for more than [***] after the priority date for such application.

"**VAT**" means United Kingdom value added tax in accordance with the United



Kingdom Value Added Tax Act 1994.

"**Vernalis Know How**" means all Know How owned by or licensed to Vernalis at the Commencement Date that is necessary to Exploit any Vernalis Licensed Compound or Licensed Product.

"**Vernalis Licensed Compound**" means any compound claimed in the Vernalis Patents ([***]), the manufacture, use or sale of which would, absent this Agreement, infringe any Valid Claim of the Vernalis Patent Rights including, for the avoidance of doubt, V81444, and any metabolite, salt, ester, hydrate, solvate, isomer, enantiomer, free acid form, free base form, crystalline form, co-crystalline form, amorphous form, pro-drug (including ester pro-drug) form, racemate, polymorph, chelate, stereoisomer, tautomer, resonate or optically active form thereof.

**"Vernalis Licensed IP"** means any and all Vernalis Know How and Vernalis Patent Rights.

"**Vernalis Patent Rights**" means the Adeno VII Patent Rights and the Non-Adeno VII Patent Rights.

"**Vernalis Patent Rights Challenge**" has the meaning attributed to it in Clause 8.3.

[***].

"**V81444**" means the molecule and structure further described at Schedule 6, also known as BIIB034 and any [***].

1.2 **Interpretation**

Unless the context otherwise requires, the following rules of interpretation shall apply to this Agreement:

1.2.1 The headings in this Agreement are inserted for convenience only and shall not affect its construction.

1.2.2 Any and all Schedules, annexes and exhibits to this Agreement form part of (and are incorporated into) this Agreement.

1.2.3 Any words following the terms "including", "include" or any similar expression shall be construed as illustrative and shall not limit the sense of the words, description, definition, phrase or term preceding those terms.





1.2.4 The word "or" has the inclusive meaning represented by the phrase "and/or".

1.2.5 Words in the singular include the plural and in the plural include the singular.

1.2.6 Use of any gender includes the other genders and neuter.

1.2.7 references to "Clauses" and "Schedules" are to clauses of, and schedules to, this Agreement.

1.2.8 references to a "person" shall be construed so as to include:

(a) any individual, firm, body corporate, authority, joint venture, association, undertaking, partnership or limited partnership (whether or not having separate legal personality); and

(b) a reference to the successors, permitted transferees and permitted assignees of any of the persons referred to in Clause 1.2.8 (a).

1.2.9 references to "written" or "writing" shall include all data in written form whether represented in hand-writing, facsimile, printed.

1.2.10 any express obligation or liability of a Party to ensure or procure the performance of any obligation by any other person shall not be reduced or discharged by any act or omission of any other person.

**2 License**

2.1 **License Grant**

Subject to the terms of this Agreement, Vernalis hereby grants to Corvus a worldwide, exclusive, royalty-bearing license under the Vernalis Licensed IP to Exploit the Vernalis Licensed Compounds and the Licensed Products in the Field in the Territory.

2.2 **Sublicensing**

2.2.1 Corvus shall be entitled to sublicense (including through multiple tiers) the rights granted to it under Clause 2.1 above to any person with similar or greater financial resources and expertise as Corvus, provided such person is [***]. If Corvus or a Sublicensee wishes to grant a sublicense to any person which does not meet the above criteria then it shall not do so without Vernalis's prior written consent (such consent not to be unreasonably withheld or delayed). Any person to which Corvus grants a sublicense and to which any further tiers of sublicense are granted, each pursuant to this Clause 2.2.1, shall be a "**Sublicensee**". In the event that Corvus grants one or more sublicenses pursuant to Clause 2.2.1, Corvus shall remain responsible for all of its obligations under this Agreement and shall cause each Sublicensee to comply with the applicable





terms and conditions of this Agreement. If the acts or omissions of any Sublicensee cause Corvus to be in breach of this Agreement, Corvus shall be responsible for such breach regardless of any remedy which either (a) Vernalis may have against the Sublicensee or (b) Corvus may have against the Sublicensee for breach of the sublicense. Any such permitted sublicenses shall be consistent with and expressly made subject to the terms and conditions of this Agreement. Corvus shall provide a copy of any sublicense agreement executed by Corvus or any Sublicensee to Vernalis within [***] of its execution.

2.2.2 In the event of termination of this Agreement:

(a) by Corvus pursuant to Clause 12.2.1 (*material breach)* or Clause 12.3 (*termination at will*) , with respect to any Vernalis Licensed Compound or Licensed Product, any sublicense granted by Corvus pursuant to Clause 2.2.1 shall automatically terminate; or

(b) by Vernalis pursuant to Clause 12.2.1 (*material breach*), Clause 12.2.2 (*challenge to IP*) or Clause 12.2.3 (*insolvency*), Vernalis shall [***]. Any such [***].

2.3 **No Other Rights Granted by Vernalis**

Except as expressly provided in this Clause 2, Vernalis grants no other right or license, including any rights or licenses to the Vernalis Licensed IP or any other Patent Rights, Know How or intellectual property rights not otherwise expressly granted in this Clause 2.

**3 Technology Transfer and Assistance**

3.1 **Technology Transfer**

As soon as practicably possible following the Commencement Date, and no later than three (3) months after the Commencement Date, Vernalis shall transfer to Corvus:

(a) all relevant regulatory, CMC, preclinical and clinical documents and reports relating to any and all Vernalis Licensed Compounds (in written, electronic or other form then-existing);

(b) purchased in-process and completed V81444 GMP and non GMP material, and available samples of any backup Vernalis Licensed Compounds and intermediates, each as set out in Schedule 2 and





as selected by Corvus; provided that Corvus shall be entitled to arrange for testing of any such materials, Vernalis Licensed Compounds and intermediates to ensure that they meet its requirements, in which case Corvus shall then notify Vernalis promptly of those materials which it wishes to purchase, and shall then within thirty (30) days after sending such notice to Vernalis pay to Vernalis the relevant sums set out in Schedule 2; and

(c) all relevant filings made to Regulatory Authorities (including, for example, INDs) by Vernalis or its Affiliates or Sublicensees for Vernalis Licensed Compounds prior to the Commencement Date.

In addition, Vernalis shall and hereby does grant to Corvus a right of reference and access to all regulatory filings referred to in (c) above and shall transfer sponsorship and ownership of the INDs in (c) above to Corvus within thirty (30) days after the Commencement Date.

**4 Conduct of Development and Commercialization**

4.1 **Decision Making and Costs**

As between the Parties, all decisions relating to the Exploitation of any Vernalis Licensed Compounds and Licensed Product shall be in the sole discretion of Corvus and shall be carried out by Corvus or its Sublicensees and they shall be responsible for all costs and expenses in connection with the Exploitation of Vernalis Licensed Compound and Licensed Product.

4.2 **Compliance with Applicable Law**

Corvus shall, and shall cause its Sublicensees to, comply with all Applicable Law with respect to the Exploitation of Vernalis Licensed Compounds and Licensed Products.

4.3 **Marketing Authorizations**

4.3.1 Corvus shall have the right and responsibility for conducting communications with Regulatory Authorities with respect to Licensed Product in the Territory, and for preparing, submitting, prosecuting and maintaining all filings and applications required to be made to any Regulatory Authority to obtain any necessary or commercially desirable Marketing Authorizations and other approvals, consents or licenses to Exploit Licensed Products, including any filings and applications to any Regulatory Authority for any pricing or reimbursement approval required or commercially desirable, and for avoidance of doubt, Corvus or its Sublicensees shall, respectively, own all right, title and interest in all the filings and applications made to, and all the approvals, consents or licenses issued by, any Regulatory Authority and they shall be responsible for all costs and expenses in connection with clinical trials and securing regulatory approvals.

4.3.2 To the extent that Corvus requires regulatory support from Vernalis to obtain or maintain any approvals, consents or licenses referred to in Clause 4.3.1 due to the Regulatory Authority requiring knowledge of work

conducted by Vernalis prior to the date of this Agreement, Vernalis shall provide commercially reasonable assistance provided it is given reasonable notice by Corvus. [***].

4.4 **Recalls**

Corvus shall notify Vernalis promptly ([***]) following its determination that any event, incident, or circumstance has occurred that may result in the need for a recall, market suspension, or market withdrawal of a Licensed Product in the Territory, and shall include in such notice the reasoning behind such determination, and any supporting facts. Corvus (or its Sublicensees, as applicable) shall have the right to make the final determination whether to voluntarily implement any such recall, market suspension, or market withdrawal in the Territory. If a recall, market suspension, or market withdrawal is mandated by a Regulatory Authority in the Territory, Corvus (or its Sublicensees, as applicable) shall initiate such a recall, market suspension, or market withdrawal in compliance with Applicable Law. For all recalls, market suspensions, or market withdrawals undertaken pursuant to this Clause 4.4, [***].

**5 Diligence and Reporting**

5.1 **Diligence**

5.1.1 The Parties acknowledge and agree that additional Development will be required to obtain Marketing Authorizations for Licensed Product in the Field in the Territory.

5.1.2 Corvus shall use Commercially Reasonable Efforts to Develop and obtain and maintain Marketing Authorizations for one or more Licensed Products in the Field in each of the Major Markets, and to Commercialize one or more Licensed Products in the Field in each of the Major Markets. In particular, prior to the First Commercial Sale, Corvus shall actively invest in and use Commercially Reasonable Efforts to progress at least one Oncology or Non-Oncology Indication in the Field in at least one Major Market. The Parties acknowledge that what constitutes Commercially Reasonable Efforts may vary between Major Markets.

5.1.3 Corvus shall use Commercially Reasonable Efforts to conduct initial pre-clinical and clinical studies, as set out in Schedule 7 and Schedule 8 respectively, to support the use of V81444 as an immunotherapeutic agent for cancer studies.

5.1.4 Without limitation to the foregoing, Corvus shall use Commercially Reasonable Efforts (and shall keep Vernalis fully informed of such efforts) to, in each case, within the time period set forth below with respect to each obligation:





(a) [***];

(b) [***]; and

(c) [***].

The Parties acknowledge that from time to time, the requirements [***] may change, and that other legal, market and other factors may arise that are not within Corvus's control that could impact the timelines [***]. Accordingly the timing set out in Clause 5.1.4(a) is based on the Parties' current expectations of the conditions that will exist during the time period [***]. Any changes impacting the bases for such expectations could extend the time period before which [***] using Commercially Reasonable Efforts.

5.2 **Records**

Corvus shall maintain records in sufficient detail and in good scientific manner appropriate for patent and regulatory purposes, and in compliance with Applicable Law, which shall be materially complete and accurate and shall properly reflect all work done and results achieved in the performance of its Development and Commercialization activities. Such records shall be retained by Corvus for at least [***], or for such longer period as may be required by Applicable Law.

5.3 **Reports and requests for additional information.**

5.3.1 Upon [***] of the Commencement Date and thereafter at least once every [***] with respect to each Licensed Product and Vernalis Licensed Compound, Corvus shall provide Vernalis with a report describing the extent of Development and, as applicable, Commercialization activities that it, and each Affiliate and Sublicensee has performed, or caused to be performed, since the preceding report and the results or implications of such activities, its and their Development and Commercialization activities in process, and the future activities it expects it and them to initiate during the ensuing [***] period.

5.3.2 Upon Vernalis' request, no more than once [***], and thereafter

no more than once [***], the Parties shall meet by means of a teleconference (or such other means as the Parties may agree from time to time) to discuss the Development and, as applicable, Commercialization activities that Corvus and each Affiliate and Sublicensee has performed, or caused to be performed, and the results obtained, since the last such meeting, and Corvus' and each Affiliate's and each Sublicensee's Development and Commercialization activities in process, and the future activities Corvus expects it and them to initiate prior to the next such meeting.

5.3.3 In addition to Clause 8.6, Corvus shall notify Vernalis within thirty (30) days after the grant of a Marketing Authorization.

5.3.4 If at any time Vernalis has a reasonable basis to believe that Corvus is in breach of its obligations under Clause 5.1.2, 5.1.3 or 5.1.4, then Vernalis shall so notify Corvus, specifying the basis for its belief, and, without limitation to any other right or remedy available to Vernalis hereunder, at Vernalis' request, the Parties shall meet within [***] after such notice to discuss in good faith Vernalis' concerns and Corvus' Development and Commercialization plans with respect to each Licensed Product and Vernalis Licensed Compound.

## 6 Milestone and Royalty Payments

### 6.1 Signature Fee

Within [***] of the execution of this Agreement, Corvus shall pay to Vernalis a [***] signature fee of one million USD ($1,000,000).

### 6.2 Milestone Payments

6.2.1 The table below (the "**Milestone Table**") sets out various milestones ("**Milestones**") that can be achieved for Oncology Indications and Non-Oncology Indications by Corvus, either by itself or through an Affiliate or Sublicensee. The amounts payable with respect to each Milestone will not vary, depending on whether the particular Milestone is achieved by Corvus itself, or an Affiliate or Sublicensee.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



| | Payment Obligation Upon Achievement of a Milestone (USD($)) | |
|---|---|---|
| **Milestone** | **Oncology Indication** | **Non-Oncology Indication** |
| [***] | | |

The total milestone payments for which Corvus may be obligated to pay Vernalis for all Licensed Products [***].

6.2.2 The amount stipulated as payable for each Milestone in the Milestone Table shall be payable by Corvus to Vernalis in accordance with Clause 6.2.3 each time the Milestone is achieved, whether by Corvus alone or in combination with or by one or more Affiliates or Sublicensees. [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



6.2.3 Corvus shall provide Vernalis with written notice immediately upon each occurrence of the achievement of a Milestone for which a payment is due to Vernalis pursuant to Clause 6.2.1. On such occurrence, Vernalis shall issue an invoice for the amount due and Corvus shall pay such amount within [***], to the bank account stipulated at Schedule 3 or such other bank account as Vernalis may notify to Corvus in accordance with Clause 20 from time to time.

### 6.3 Sales Milestones

6.3.1 The table below (the "**Sales Milestone Table**") sets out various sales milestones ("**Sales Milestones**") that can be achieved in respect of worldwide Net Sales.

| **Milestone** | | **Payment Obligation Upon Achievement of Sales Milestone (USD($))** |
|---|---|---|
| [***] | [***] | [***] |
| [***] | [***] | [***] |

6.3.2 The amount stipulated as payable for each Sales Milestone in the Sales Milestone Table shall be payable by Corvus to Vernalis in accordance with Clause 6.3.3 when the Milestone is achieved, whether by Corvus alone or in combination with or by one or more Affiliates or Sublicensees. [***].

6.3.3 Corvus shall provide Vernalis with written notice immediately upon each occurrence of the achievement of a Sales Milestone. On such occurrence, Vernalis shall issue an invoice for the amount due and Corvus shall pay such amount within [***], to the bank account stipulated at Schedule 3 or such other bank account as Vernalis may notify to Corvus in accordance with Clause 20 from time to time.

### 6.4 Royalties

6.4.1 In further consideration of the licenses granted by Vernalis to Corvus under Clause 2.1, subject to Clause 6.4.3, Corvus shall, subject to the other terms and conditions of this Agreement, pay Vernalis royalties on a Licensed Product-by-Licensed Product and country-by-country basis, according to the portions of Annual Net Sales ("**Royalties**"), as follows:

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



| **Portion of Annual Net Sales of Licensed Product containing V81444 in a given country in United States Dollars ($)** | **Percentage (%) of Net Sales of such Licensed Product in such country** |
|---|---|
| Less than or equal to [***] | [***] |
| Greater than [***] and less than or equal to [***] | [***] |
| In excess of [***] | [***] |

| **Portion of Annual Net Sales of Licensed Product not containing V81444 in a given country in United States Dollars ($)** | **Percentage (%) of Net Sales of such Licensed Product in such country** |
|---|---|
| Less than or equal to [***] | [***] |
| Greater than [***] and less than or equal to [***] | [***] |
| In excess of [***] | [***] |

For the avoidance of doubt, all Licensed Product containing the same Adenosine Receptor Antagonist shall be treated as a single Licensed Product for the basis of this calculation, regardless of its form, presentation, delivery system, dosage or formulation.

6.4.2 Royalties are payable on Net Sales of a given Licensed Product on a country-by-country basis such that if, for example, Net Sales in the United States in a given calendar year of Licensed Product containing V81444 equals [***], and Net Sales in the United Kingdom in such calendar year of Licensed Product containing V81444 equals [***], then Corvus will pay to Vernalis an amount equal to ([***] plus [***], for such Net Sales in the United States) plus ([***], for such Net Sales in the United Kingdom). Corvus' obligation to pay Royalties to Vernalis under Clause 6.4.1 on Net Sales shall terminate, on a Licensed Product-by-Licensed Product and country-by-country basis, on the later to occur of [***] (the "**Royalty Term**"). Upon termination of the royalty obligations of Corvus under this Clause 6.4.2 with respect to a Licensed Product in a country the licenses granted to Corvus in Clause 2.1 shall become non-exclusive, irrevocable and fully paid-up with respect to such Licensed Product in such country and Net Sales of such Licensed Product in such country shall be excluded from the royalty calculations set out in Clause 6.4.1. For the

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



avoidance of doubt, the expiry of the Royalty Term with respect to a particular country for a given Licensed Product shall not result in the termination of the Royalty Term for any other Licensed Product with respect to that country or any other country.

6.4.3 If, on a Licensed Product-by-Licensed Product basis, at the time such Licensed Product is sold, [***], then the royalty rate set forth in Clause 6.4.1 shall be [***] of such Product [***]. For example, for sales of less than or equal to [***] of Licensed Product containing V81444 in [***], the royalty rate shall [***].

6.5 **Royalty Procedures**

6.5.1 During the Term, following the First Commercial Sale of Licensed Product, Corvus shall on or before the [***] following the end of each [***] deliver to Vernalis a written report for [***] showing, in each case on a country-by-country and Licensed Product-by-Licensed product basis: [***].

6.5.2 Vernalis shall issue an invoice for the Royalties payable according to this Agreement and the written report delivered by Corvus to Vernalis in accordance with Clause 6.5.1. Corvus acknowledges and agrees that all such invoices shall be issued by Vernalis in reliance on the information provided by Corvus. Neither the issue of any such invoice nor receipt of payment, shall be, nor shall either be deemed to be, acceptance by Vernalis of the accuracy of any written report and shall in each case be without prejudice to Vernalis' rights to audit or dispute the amount of Royalties payable.

6.5.3 Corvus shall, [***], pay to Vernalis, in USD ($) by telegraphic transfer to the bank account set out at Schedule 3 the amount stated in such invoice.

6.5.4 The functional currency for accounting will be USD. Except as the Parties otherwise mutually agree, for billing and reporting, Net Sales will be translated into USD using the currency exchange rates quoted by *Bloomberg Professional*, a service of Bloomberg L.P., or in the event *Bloomberg Professional* is not available then *The Wall Street Journal* using the average monthly rate of exchange for the month to which Net Sales were dated.

6.6 **Records and Audits**

6.6.1 Corvus shall keep, and shall cause its Sublicensees and its and their Affiliates to keep, complete and accurate books and financial records

containing all data necessary for the calculation of the amounts payable by Corvus pursuant to this Agreement, which books and financial records shall be kept in accordance with United States GAAP, consistently applied, and shall be retained by Corvus, its Sublicensees and its and their Affiliates as appropriate, until [***] after the end of the calendar year to which they relate.

6.6.2 Upon the written request of Vernalis, Corvus shall permit (and shall use reasonable endeavours to procure that its Sublicensees and its and their Affiliates shall permit) an independent certified public accounting firm of internationally recognised standing selected by Vernalis, and reasonably acceptable to Corvus, to inspect and audit, during normal business hours and upon reasonable prior written notice, such of the records of Corvus, its Sublicensees and its or their Affiliates as may be reasonably necessary to verify the accuracy of the reports provided in accordance with Clause 6.6.1; provided that Vernalis shall not have the right to inspect or audit records for any calendar year more than once or records more than [***] old [***]. If such accounting firm concludes that Corvus owed additional amounts to Vernalis during such period, Corvus shall pay Vernalis the difference between the amount actually owed, as determined by the accounting firm, and the amount actually paid by Corvus, with interest calculated in accordance with Clause 6.6.3 from the date originally due to the date of payment, [***] after the date on which such accounting firm's written report is delivered to Corvus. If the accounting firm determines that there has been an underpayment of more than [***], Corvus shall bear all costs related to such audit otherwise Vernalis shall bear the cost of such audit. All books and financial records made available for inspection or audit shall be deemed to be Corvus' or its Sublicensees' Confidential Information. For the avoidance of doubt, any such independent accounting firm shall, prior to such inspection, enter into a non-disclosure agreement in a form reasonably acceptable to Corvus and its Sublicensees. The accounting firm shall disclose to the Parties whether or not the payment in question was accurately calculated by Corvus and the specific details concerning any discrepancies but no other information shall be provided to Vernalis.

6.6.3 Any payment that is not paid on the date such payment is due under this Agreement shall bear interest at a rate equal to the lesser of [***] and [***], calculated on the number of days such payment is delinquent, compounded monthly. For the purposes of this Agreement "**LIBOR**" shall mean the three (3) month London Interbank Offered Rate as calculated by the British Bankers' Association or, if LIBOR ceases to be available, the base rate of a London bank selected by Vernalis.

6.7 **Withholding**

6.7.1 Any sums payable to Vernalis under this Agreement shall be paid from the United States and [***]





[***].

6.7.2 Vernalis shall complete and return to Corvus any form provided by Corvus that is required by the relevant tax authorities from time to time (including, if required, [***]) to (a) [***]; and (b) [***]. In the event that Vernalis fails to return to Corvus such forms duly completed and signed before the due date for the relevant payment, Corvus will, if and to the extent required by Applicable Law, [***]. Corvus shall [***]; provided, however, that Vernalis may, at any time prior to a payment due date, specify a later due date for payment, and Corvus shall delay making such payment to such later due date (without incurring any liability pursuant to Clause 6.6.3), in order to [***].

6.8 **VAT**

Any sums payable by Corvus to Vernalis under this Agreement shall [***]. Without prejudice to the obligations set out in the preceding sentence: (x) [***]; and (y) [***] (and what is reasonable shall be considered in the light of the circumstances at that time including the likelihood or otherwise that [***]).





**7 Intellectual Property — Ownership**

7.1 As between the Parties any and all Vernalis Licensed IP is and shall remain owned solely by Vernalis.

7.2 As between the Parties any and all Corvus Background IP is and shall remain owned solely by Corvus.

7.3 Any and all Corvus Arising IP shall be owned solely by Corvus.

**8 Intellectual Property - Prosecution, Maintenance, Defence and Enforcement**

8.1 **Corvus Patent Rights**

Corvus shall [***] diligently file, prosecute and maintain the Corvus Patent Rights in its own name. Corvus shall keep Vernalis reasonably informed on not less than an annual basis with regard to the preparation, filing, prosecution, grant and maintenance of Corvus Patent Rights. Corvus shall inform Vernalis within [***] of the first filing of any patent application covering a new Corvus Arising Patent Right.

8.2 **Patent Prosecution and Maintenance of Vernalis Patent Rights**

8.2.1 Vernalis shall have the right, but not the obligation, to prepare, file, prosecute, and maintain the Vernalis Patent Rights worldwide, [***]. Vernalis shall keep Corvus reasonably informed with regard to the preparation, filing, prosecution, and maintenance of Vernalis Patent Rights. Vernalis shall provide Corvus with copies of all substantive correspondence from a patent office and drafts of any proposed Patent filings or other prosecution correspondence with respect to Vernalis Patent Rights that are to be filed with patent authorities in the Territory, at least thirty (30) days in advance of Vernalis' anticipated filing date or any relevant deadline therefor. Corvus shall have the right to approve all such filings with respect to all Non-Adeno VII Patent Rights by providing written notice to Vernalis either of such approval of such filings or of the changes Corvus requires to such filings, within fourteen (14) days after receiving a copy thereof. Vernalis shall incorporate Corvus's reasonable comments into such filings prior to submission thereof.

8.2.2 In the event that Vernalis decides not to prepare, file, prosecute, or maintain a Non-Adeno VII Patent Right, Vernalis shall provide at least thirty (30) days (where applicable) prior written notice to Corvus of such intention, and, Corvus shall thereupon have the option, in its sole discretion, to assume the control and direction of the preparation, filing, prosecution, and maintenance of such Non-Adeno VII Patent Right in Vernalis' name in such country, with the cost of such activities for Corvus alone. In the event that Vernalis decides not to prepare, file, prosecute, or maintain an Adeno VII Patent Right, Corvus shall only have the right to assume the control and direction of the preparation, filing, prosecution and maintenance of such Patent Right if the Redox Sub-Licence has expired or been terminated. In such event, if Corvus opts to assume the control and

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



direction of such Patent Rights then the cost of such activities shall be for Corvus alone.

8.3 **Notification of Licensed Product Infringements and Vernalis Patent Rights Challenges**

Each Party shall promptly notify the other Party in writing of any alleged or threatened (a) infringement of the Vernalis Patent Rights by a Third Party in the Field in the Territory of which such Party becomes aware ("**Licensed Product Infringement**"), and (b) assertion of invalidity or unenforceability of any Vernalis Patent Rights by a Third Party in the Field in the Territory of which such Party becomes aware, whether as a counterclaim or otherwise ("**Vernalis Patent Rights Challenge**").

8.4 **Generic Competition**

Notwithstanding the foregoing, if either Party (a) reasonably believes that a Third Party [***]; (b) [***]; or (c) [***], it shall (i) [***] and (ii) [***], and the Parties' rights and obligations with respect to any legal action as a result of such certification shall be as set forth in Clause 8.5.

8.5 **Right to prosecute and defend Patent Rights**

8.5.1 **Vernalis Patent Rights Initial Enforcement**

Subject to Clause 8.5.2, as between the Parties, Vernalis shall have the first right, but not the obligation, to prosecute any Licensed Product Infringement of or otherwise challenge such Generic Competition by asserting the Vernalis Patent Rights, and to defend any Vernalis Patent Rights Challenge, in the Territory, and to control such actions (including any declaratory judgment action and any settlement), provided that Vernalis shall keep Corvus reasonably informed as to the status of, and all material developments in such action, and shall consider in good faith the input of Corvus regarding the strategy and handling of such enforcement activities.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



8.5.2 **Non-Adeno VII Patent Rights Initial Enforcement**

Notwithstanding the foregoing, and solely with respect to Non-Adeno VII Patent Rights, as between the Parties, Corvus shall have the first right, but not the obligation, to prosecute any Licensed Product Infringement of or otherwise challenge such Generic Competition by asserting the Non-Adeno VII Patent Rights, and to defend any Vernalis Patent Rights Challenge related to the Non-Adeno VII Patent Rights, in the Territory, and to control such actions including any declaratory judgment action and any settlement, provided that Corvus shall keep Vernalis reasonably informed as to the status of, and all material developments in such action, and shall consider in good faith the input of Vernalis regarding the strategy and handling of such enforcement activities.

8.5.3 **Timing**

The Party with the first right to prosecute or defend with respect to any infringement, enforcement or challenge described in Clauses 8.5.1 and 8.5.2 shall have a period of ninety (90) days (or fifteen (15) days if a notice of certification pursuant to the ANDA Act has been issued) following

the first notice provided pursuant to Clause 8.5.1 and 8.5.2 to elect to so enforce or defend such Vernalis Patent Rights in the applicable jurisdiction. The enforcing or defending Party shall share drafts of all submissions or other documents exchanged in the relevant proceedings with the other Party and shall have due regard to any representations made by the other Party in relation thereto. In the event the enforcing Party does not elect to prosecute or defend such infringement or challenge before the first to occur of (A) ninety (90) days (or fifteen (15) days in the case of a certification under the ANDA Act) following the first notice provided pursuant to Clause 8.5.1 and 8.5.2 with respect to such matter, or (B) thirty (30) days before the expiration of any time period under Applicable Law that would, if an enforcement proceeding was not filed within such time period, limit or compromise the remedies available from such enforcement proceeding, it will so notify the other Party in writing and in the case where such other Party then desires to commence a suit or take action to enforce or defend the applicable Vernalis Patent Rights with respect to such infringement or challenge in the applicable jurisdiction, such other Party will thereafter have the right to commence such a suit or take such action to enforce or defend the applicable Vernalis Patent Rights at such other Party's expense.

8.5.4 **Allocation of Rights**

Where Corvus prosecutes the Licensed Product Infringement or challenges the Generic Competition by asserting the Vernalis Patent Rights or defends a Vernalis Patent Rights Challenge Corvus shall hold Vernalis harmless from and against any and all costs and expenses of such litigation, including reasonable counsel's fees and expenses (except as expressly provided in Clause 8.5.6), and shall also [***].

Where Vernalis prosecutes the Licensed Product Infringement of or challenges the Generic Competition by asserting the Vernalis Patent Rights or defends a Vernalis Patent Rights Challenge, Vernalis shall hold Corvus harmless from and against any and all costs and expenses of such litigation, including reasonable counsel's fees and

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



expenses (except as expressly provided in Clause 8.5.6), and shall also [***].

8.5.5 **Cooperation**

Where a Party prosecutes a Licensed Product Infringement, challenges Generic Competition or defends a Vernalis Patent Rights Challenge in the Field (the "Litigating Party"), the other Party will reasonably cooperate with and assist the Litigating Party in relation to such claim, suit or proceeding, and, if the Litigating Party so elects, the other Party shall join as a party to such claim, suit, or proceeding in the Territory and shall provide the Litigating Party with all necessary assistance in relation to such claim, suit or proceeding. Where the Litigating Party requires the other Party to be joined as a party in such proceeding, the Litigating Party shall bear the other Party's' costs and expenses arising from being joined as a party to such claim, suit or proceeding provided that the other Party does not appoint its own counsel and uses the Litigating Party's counsel. The non-Litigating Party in relation to any enforcement or defense action or proceeding set forth in Clause 8.5 will have the right, at its own expense and by counsel of its choice, to be represented in any such action or proceeding.

8.5.6 **Recovery**

Except as otherwise agreed by the Parties in connection with a cost sharing arrangement, any recovery realized as a result of such litigation described in Clause 8.5 (whether by way of settlement or otherwise) shall be first, allocated to reimburse the Parties for their costs and expenses in making such recovery including for Adeno VII Patent Rights litigation, the costs and expenses of [***], as applicable, to any such litigation (which amounts shall be allocated pro rata, with respect to costs, if insufficient to cover the totality of such expenses). Any remainder after such reimbursement is made shall be split between the Parties such that the Litigating party would retain [***] of such remainder and the non-Litigating Party would retain [***] of such remainder.

8.6 **Patent Term Extension.**

After filing an application for Regulatory Approval for a given Licensed Product in the Territory, Corvus shall provide to Vernalis a written list specifying all Vernalis Patent Rights that Corvus is in good faith considering to be the subject of a patent extension with respect to such Licensed Product. After receiving Regulatory Approval for such Licensed Product, Corvus shall identify one or more Patents within the Vernalis Patent Rights in the country in the Territory where the Licensed Product was approved, and notify Vernalis of the identified Patent(s). Corvus shall then have the right to request that Vernalis file, [***], an application for an extension, and take all reasonable actions necessary. Vernalis agrees to cooperate and to use good faith efforts to obtain such an extension.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



8.7 **Infringement of Third Party Rights**

8.7.1 **Notification**

If the Exploitation of the Licensed Product in the Field and in the Territory results in a claim for patent infringement by a Third Party, the Party first having notice of such claim shall promptly notify the other Party in writing of such a claim. Following such notice, the Parties agree to enter into either a joint defense or common interest agreement, under which agreement the Parties can share the known facts of such infringement in reasonable detail, if they are advised to do so by counsel.

8.7.2 **Third Party Claims**

[***] shall have the right to assume control of the defense of any claims brought by Third Parties alleging infringement of Third Party intellectual property rights in connection with the Exploitation of the Licensed Product in the Field in the Territory, [***] and to be represented by its own counsel. If requested [***].

8.7.3 **Licenses to Third Party Rights.**

If as a result of defending claims as set forth in Clause 8.7 or otherwise, Corvus determines in good faith that it is reasonably necessary to obtain a license under any Third Party intellectual property rights that would be infringed by the Exploitation of the Licensed Product in the Field in the Territory, then [***]. All amounts due under such Third Party license agreement with respect to manufacture, use or sale of the Licensed Product in the Field in the Territory [***].

## 9 Warranties and Liability

### 9.1 Mutual Representations and Warranties

Vernalis and Corvus each represents and warrants, as of the Commencement Date, and covenants, as follows:

9.1.1 it is a company duly organized, validly existing, and in good standing under the laws of the jurisdiction of its organization, and has all requisite power and authority, corporate or otherwise, to execute, deliver, and perform this Agreement;

9.1.2 it is not under any obligation, contractual or otherwise, to any person that conflicts with or is inconsistent in any material respect with the terms of this Agreement, or that would impede the diligent and complete fulfilment of its obligations under this Agreement; and

9.1.3 This Agreement is a legal, valid, and binding obligation of such Party enforceable against it in accordance with its terms and conditions, subject



to the effects of bankruptcy, insolvency, or other laws of general application.

### 9.2 Additional Representations and Warranties of Vernalis

Vernalis further represents and warrants, as of the Commencement Date, and covenants, as follows:

9.2.1 Vernalis controls the Vernalis Patent Rights as of the Commencement Date and has the right to grant the licenses and sublicenses specified in this Agreement.

9.2.2 Neither Vernalis nor its Affiliates or, to Vernalis' knowledge, Vernalis' prior or current licensees ([***]) performing activities in connection with the Vernalis Licensed Compounds or Licensed Products, own or control any Patent Rights claiming the composition, method of use or manufacture, formulation or other attribute of Licensed Vernalis Compounds or Licensed Products that is not included in the Vernalis Patent Rights licensed to Corvus pursuant to this Agreement.

9.2.3 Vernalis has disclosed to Corvus all material agreements under which Corvus receives a sublicense under this Agreement.

9.2.4 Vernalis has not received any written claim or demand alleging that the Vernalis Patent Rights or the Vernalis Know How are invalid or unenforceable.

9.2.5 Vernalis has no knowledge of any defects in form and filing of the Vernalis Patent Rights that could reasonably be anticipated to result in invalidity or unenforceability of such Vernalis Patent Rights.

9.2.6 Vernalis has not received any written notice of, and has not been served with, any Third Party claims, suits or actions issued in any court or competent tribunal to which Vernalis or its Affiliates, or, to Vernalis' knowledge, Vernalis' prior or current licensees, were or are a party alleging either infringement or misappropriation of intellectual property rights owned or controlled by such Third Party by the manufacture, use or sale of the Vernalis Licensed Compound or Licensed Product, or that such Third Party has an ownership or inventorship interest in such Vernalis Patent Rights. For the avoidance of doubt, this Clause 9.2.6 does not constitute a representation or warranty that the manufacture, use or sale of the Vernalis Licensed Compound or Licensed Product does not or may not infringe any Third Party intellectual property right.

9.2.7 [***]



[***].

9.2.8 Neither Vernalis nor any of its Affiliates, nor, to Vernalis' knowledge, any of its licensees or independent contractors performing activities in connection with the Development or Manufacture of Licensed Products prior to the Commencement Date has been debarred

or is subject to debarment and neither Vernalis nor any of its Affiliates, or, to Vernalis' knowledge, any of its licensees or independent contractors performing activities in connection with the Development or Manufacture of Licensed Products prior to the Commencement Date has used in any capacity, in connection with such activities, any person who has been debarred pursuant to Section 306 of the United States Food, Drug, and Cosmetic Act, or any equivalent legislation in any other jurisdiction, or who is the subject of a conviction described in such section or equivalent legislation.

9.3 **Additional Representations and Warranties of Corvus**

Corvus further represents and warrants to Vernalis, as of the Commencement Date, and covenants, as follows:

9.3.1 Neither Corvus nor any of its Affiliates has been debarred or is subject to debarment and neither Corvus nor any of its Affiliates will use in any capacity, in connection with the work to be performed under this Agreement, any person who has been debarred pursuant to Section 306 of the United States Food, Drug, and Cosmetic Act, or any equivalent legislation in any other jurisdiction, or who is the subject of a conviction described in such section or equivalent legislation. Corvus agrees to inform Vernalis in writing promptly if it or any such person is debarred or is the subject of a conviction described in Section 306 or any equivalent legislation in any jurisdiction, or any investigation or claim in relation to the same.

9.3.2 [***].

9.3.3 Neither Corvus nor any of its Affiliates owns, or is a licensee of, any Patent Rights which cover (i) a Vernalis Licensed Compound, (ii) a Licensed Product, (iii) any Corvus Background Know How or (iv) any Adenosine Receptor Antagonist.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



9.3.4 Corvus raised approximately [***] in a Series A financing round in 2014 and early 2015 and as of the Commencement Date has [***] remaining and available for commencement of the pre-clinical studies set out in Schedule 7. Subject to the terms and conditions of the Series A Preferred Stock Purchase Agreement, dated November 26, 2014, Corvus may raise an additional [***] through subsequent sales and issuances of its Series A Preferred Stock.

9.3.5 Corvus has or can obtain sufficient expertise, employee resources and access to sub-contracting facilities to conduct the pre-clinical studies appropriate and necessary to develop Licensed Products as initially set out in Schedule 7.

9.4 **Disclaimer of Warranties**

**Except for the express warranties set forth in this Agreement, neither Party makes any representations or grants any warranties, express or implied, either in fact or by operation of Applicable Law or otherwise, and each Party specifically disclaims any other warranties, whether written or oral, or express or implied, including any warranty of quality, merchantability, or fitness for a particular use or purpose or any warranty as to the validity of any Patent Rights or the non-infringement of any Patent Rights of Third Parties.**

**10 Indemnification and Liability**

10.1 **Indemnification of Vernalis**

Corvus shall indemnify Vernalis, its Affiliates and their respective directors, officers, employees, and agents, and defend and save each of them harmless, from and against any and all losses, damages, liabilities, costs, and expenses (including reasonable counsel's fees and expenses) (collectively, "**Losses**") in connection with any and all suits, investigations, claims, or demands of Third Parties (collectively, "**Third Party Claims**") arising from or occurring as a result of: (a) the breach by Corvus of this Agreement, (b) the negligence or wilful misconduct on the part of Corvus or Sublicensees, or its or their Affiliates, distributors or contractors or its or their respective directors, officers, employees, and agents in performing its or their obligations under this Agreement, or (c) the Exploitation by Corvus or any of its Sublicensees, or its or their Affiliates, or its or their distributors or contractors of Licensed Product or the Vernalis Licensed Compound in the Territory after the Commencement Date or by Corvus alone under the Confidential Disclosure Agreement prior to the Commencement Date, except for those Losses for which Vernalis has an obligation to indemnify Corvus pursuant to Clause 10.2, as to which Losses each Party shall indemnify the other to the extent of their respective liability.

10.2 **Indemnification of Corvus**

Vernalis shall indemnify Corvus, its Affiliates and their respective directors, officers, employees, and agents, and defend and save each of them harmless, from and against any and all Losses in connection with any and all Third Party Claims arising from or occurring as a result of (a) the breach by Vernalis of this Agreement, (b) the negligence or wilful misconduct on the part of Vernalis, or its or their Affiliates, or its

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



or their respective directors, officers, employees, and agents in performing its or their obligations under this Agreement, or (c) the Exploitation by Vernalis or any of its licensees, or its or their Affiliates, or its or their distributors or contractors either (i) of Licensed Product or the Vernalis Licensed Compound in the Territory prior to the Commencement Date, or (ii) of [***] at any time, except for those Losses for which Corvus has an

obligation to indemnify Vernalis pursuant to Clause 10.1, as to which Losses each Party shall indemnify the other to the extent of their respective liability for the Losses.

10.3 **Notice of Claim**

All indemnification claims in respect of a Party, its Affiliates, or their respective directors, officers, employees and agents shall be made solely by such Party to this Agreement (the "**Indemnified Party**"). The Indemnified Party shall give the indemnifying Party prompt written notice (an "**Indemnification Claim Notice**") of any Losses or discovery of fact upon which such indemnified Party intends to base a request for indemnification under this Clause 10, but in no event shall the indemnifying Party be liable for any Losses to the extent resulting from any delay in providing such notice. Each Indemnification Claim Notice must contain a description of the claim and the nature and amount of such Loss (to the extent that the nature and amount of such Loss is known at such time). The Indemnified Party shall furnish promptly to the indemnifying Party copies of all papers and official documents received in respect of any Losses and Third Party Claims.

10.4 **Control of Defence**

10.4.1 At its option, the indemnifying Party may assume the defence of any Third Party Claim by giving written notice to the Indemnified Party [***] after the indemnifying Party's receipt of an Indemnification Claim Notice. Upon assuming the defence of a Third Party Claim, the indemnifying Party may appoint as lead counsel in the defence of the Third Party Claim any legal counsel selected by the indemnifying Party. In the event the indemnifying Party assumes the defence of a Third Party Claim, the Indemnified Party shall immediately deliver to the indemnifying Party all original notices and documents (including court papers) received by the Indemnified Party in connection with the Third Party Claim. Should the indemnifying Party assume the defence of a Third Party Claim, except as provided in Clause 10.4.3, the indemnifying Party shall not be liable to the Indemnified Party for any legal expenses subsequently incurred by such Indemnified Party in connection with the analysis, defence or settlement of the Third Party Claim unless incurred in connection with a specific request made in writing by the indemnifying Party. In the event that it is ultimately determined that the indemnifying Party is not obligated to indemnify, defend or hold harmless the Indemnified Party from and against the Third Party Claim, the Indemnified Party shall reimburse the indemnifying Party for any and all costs and expenses (including reasonable counsels' fees and costs) and any Losses incurred by the indemnifying Party in its defence of the Third Party Claim.

10.4.2 Without limiting Clause 10.4.1, the Indemnified Party shall be entitled to participate in, but not control, the defence of such Third Party Claim and to



employ counsel of its choice for such purpose; provided, however, that such employment shall be at the Indemnified Party's own expense unless (a) the employment thereof has been specifically authorized by the indemnifying Party in writing, (b) the indemnifying Party has failed to assume the defence and employ counsel in accordance with Clause 10.4.1 (in which case the Indemnified Party shall control the defence), or (c) the interests of the Indemnified Party and the indemnifying Party with respect to such Third Party Claim are sufficiently adverse to prohibit the representation by the same counsel of both Parties under Applicable Law, ethical rules or equitable principles.

10.4.3 With respect to all Losses in connection with Third Party Claims, where the indemnifying Party has assumed the defence of the Third Party Claim in accordance with Clause 10.4.1, the indemnifying Party shall have authority to consent to the entry of any judgment, enter into any settlement or otherwise dispose of such Loss; provided it obtains the prior written consent of the Indemnified Party (which consent shall not be unreasonably withheld or delayed). If the indemnifying Party does not assume and conduct the defence of a Third Party Claim as provided above, the Indemnified Party may defend against such Third Party Claim; provided that the Indemnified Party shall not settle any Third Party Claim without the prior written consent of the indemnifying Party, not to be unreasonably withheld or delayed.

10.4.4 Regardless of whether the indemnifying Party chooses to defend or prosecute any Third Party Claim, the Indemnified Party shall, and shall cause each indemnitee to, cooperate in the defence or prosecution thereof and shall furnish such records, information and testimony, provide such witnesses and attend such conferences, discovery proceedings, hearings, trials and appeals as may be reasonably requested in connection with such Third Party Claim, and the indemnifying Party shall reimburse the Indemnified Party for all its reasonable out-of-pocket expenses in connection therewith.

10.5 **Indirect, consequential and other losses**

10.6 IN NO EVENT SHALL EITHER PARTY BE LIABLE HEREUNDER TO THE OTHER PARTY FOR ANY LOSS, DAMAGE, COSTS OR EXPENSES OF ANY NATURE WHATSOEVER INCURRED OR SUFFERED BY THE OTHER PARTY OR ITS AFFILIATES OF A SPECIAL, INDIRECT, CONSEQUENTIAL OR PUNITIVE NATURE, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE ARISING IN CONNECTION WITH ACTIVITIES CONDUCTED UNDER THIS AGREEMENT.

10.7 **Insurance**

Corvus shall have and maintain such type and amounts of insurance covering its Exploitation of the Vernalis Licensed Compound and Licensed Product as is (a) normal and customary in the pharmaceutical industry generally for parties similarly situated and (b) otherwise required by Applicable Law. Corvus shall have and maintain such insurance during the Term and after the expiration or termination of this Agreement for a period of [***] following termination or expiration of

this Agreement in its entirety for any reason. Upon request by Vernalis, Corvus shall provide certificates of insurance evidencing compliance with this Clause 10.7.

**11 Confidentiality**

11.1 At all times during the Term and for a period of [***] following termination or expiration of this Agreement in its entirety, each Party shall, and shall cause its officers, directors, employees and agents to:

11.1.1 keep confidential and not publish or otherwise disclose to a Third Party and not use, directly or indirectly, for any purpose, any Confidential Information furnished or otherwise made known to it, directly or indirectly, by the other Party, except to the extent such disclosure or use is expressly permitted by the terms of this Agreement or is reasonably necessary for the performance of, or the exercise of such Party's rights under, this Agreement;

11.1.2 ensure that only those of its officers, directors, employees, and agents have access to the Confidential Information on a strictly applied "need to know" basis and are informed of the secret and confidential nature of it; and

11.1.3 keep the Confidential Information separately identifiable at all times from all other Know How which it may hold.

11.2 The obligations of confidentiality and non-use set out in Clause 11.1 shall not extend to any Confidential Information which:

11.2.1 is or hereafter becomes part of the public domain by public use, publication, general knowledge or the like through no wrongful act, fault or negligence on the part of the receiving Party;

11.2.2 can be demonstrated by documentation or other competent proof to have been in the receiving Party's possession prior to disclosure by the disclosing Party without any obligation of confidentiality with respect to such information; or

11.2.3 is subsequently received by the receiving Party from a Third Party who is not bound by any obligation of confidentiality with respect to such information;

11.2.4 has been published by a Third Party or otherwise enters the public domain through no fault of the receiving Party in breach of this Agreement; or

11.2.5 can be demonstrated by documentation or other competent evidence to have been independently developed by or for the receiving Party without reference to the disclosing Party's Confidential Information.

Specific aspects or details of Confidential Information shall not be deemed to be within the public domain or in the possession of the receiving Party merely because the Confidential Information is embraced by more general information in the public domain or in the possession of the receiving Party. Further, any combination of Confidential Information shall not be considered in the public domain or in the possession of the receiving Party merely because individual elements of such Confidential Information are in the public domain or in the possession of the

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



receiving Party unless the combination and its principles are in the public domain or in the possession of the receiving Party.

11.3 Each Party may disclose Confidential Information to the extent that such disclosure is:

11.3.1 made in response to a valid order of a court of competent jurisdiction or other Government Authority or, if in the reasonable opinion of the receiving Party's legal counsel, such disclosure is otherwise required by a securities regulator with which such Party or its Affiliates are listed (including the UKLA); provided, however, that the receiving Party shall first have given notice to the disclosing Party and given the disclosing Party a reasonable opportunity to quash such order or to obtain a protective order or confidential treatment requiring that the Confidential Information and documents that are the subject of such order be held in confidence by such court or agency or, if disclosed, be used only for the purposes for which the order was issued; and provided further that the Confidential Information disclosed in response to such court or order of a Government Authority shall be limited to that information which is legally required to be disclosed in response to such court or governmental order;

11.3.2 made by or on behalf of the receiving Party to the Government Authorities or Regulatory Authorities as required in connection with any filing, application or request for Marketing Authorization, or to comply with the requirements of any securities exchange, including, without limitation, in connection with a public offering; provided, however, that reasonable measures shall be taken to assure confidential treatment of such information to the extent practicable and consistent with Applicable Law; or

11.3.3 made by or on behalf of the receiving Party to the receiving Party's Affiliates, and actual or potential acquirers, merger partners, licensors, licensees, Sublicensees, assignees, subcontractors, investment bankers, investors, other potential financial partners and independent contractors, and their respective officers, directors, employees, and agents, in each case who are or may become directly involved in or concerned with the carrying out of this Agreement or engaged in advising the receiving Party on business or financial matters, on a strictly applied "need to know" basis; provided, however, that such persons and entities shall use such Confidential Information solely for the purpose of carrying out this Agreement or advising the receiving Party on business or financial matters, and

further provided that such persons and entities are either subject to confidentiality and non-use obligations at least as stringent as the confidentiality and non-use obligations provided for in this Clause 11 or bound by substantially similar obligations under law or pursuant to rules of professional ethics.

11.4 Upon the effective date of the termination of this Agreement for any reason, either Party may request in writing, and the other Party shall either, with respect to Confidential Information to which such first Party does not retain rights under the surviving provisions of this Agreement: (a) promptly destroy all copies of such Confidential Information in the possession of the other Party and confirm such





destruction in writing to the requesting Party; or (b) promptly deliver to the requesting Party, at the other Party's expense, all copies of such Confidential Information in the possession of the other Party; provided, however, the other Party shall be permitted to retain one (1) copy of such Confidential Information for the sole purpose of performing any continuing obligations under this Agreement or for archival purposes. Notwithstanding the foregoing, such other Party also shall be permitted to retain such additional copies of or any computer records or files containing such Confidential Information that have been created solely by such Party's automatic archiving and back-up procedures, to the extent created and retained in a manner consistent with such other Party's standard archiving and back-up procedures, but not for any other use or purpose. All Confidential Information shall continue to be subject to the terms of this Agreement for the period stated in Clause 11.1.

**12 Term and Termination**

12.1 **Term**

Subject to the other provisions of this Clause 12 this Agreement shall expire on a Licensed Product-by-Licensed Product and country-by-country basis when no further payment is due from Corvus to Vernalis in relation to sales of such Licensed Product in that country (the "**Term**").

12.2 **Termination for Cause or Insolvency**

12.2.1 Each of the Parties shall have the right to terminate this Agreement for cause with immediate effect upon giving written notice of termination to the other (the "**Defaulting Party**") if the Defaulting Party commits a material breach of this Agreement which is incapable of remedy or which in the case of a breach capable of remedy shall not have been remedied within ninety (90) days (or for breaches of payment obligations, thirty (30) days) of the receipt by it of a written notice from the other Party identifying the breach and requiring its remedy.

12.2.2 Vernalis shall have the right to terminate this Agreement in its entirety by giving ninety (90) days' notice of termination in writing to Corvus if Corvus or any of its Affiliates challenges or threatens to challenge the validity of, or Vernalis' title to any of the Vernalis Patent Rights in any country. Corvus shall include in its agreements with Sublicensees a provision stating that if such Sublicensee or any of its Affiliates challenges or threatens to challenge the validity of, or Vernalis' title to any of the Vernalis Patent Rights in any country, Corvus has the right to terminate the sublicense granted to such Sublicensee under such Vernalis Patent Rights. If such Sublicensee breaches such obligation, Corvus shall terminate such sublicense.

12.2.3 In the event that either Party (a) files for protection under bankruptcy or insolvency laws, (b) makes an assignment for the benefit of creditors, (c) appoints or suffers appointment of a receiver or trustee over substantially all of its property that is not discharged within ninety (90) days after such filing, (d) proposes a written agreement of composition or extension of its debts, (e) proposes or is a party to any dissolution or





liquidation, (f) files a petition under any bankruptcy or insolvency act or has any such petition filed against that is not discharged within sixty (60) days of the filing thereof, or (g) ceases for any reason to carry on business, then the other Party may terminate this Agreement in its entirety effective immediately upon written notice to such Party.

12.3 **Termination at Will**

Corvus may terminate this Agreement at will in its entirety on ninety (90) days' prior written notice to Vernalis, provided that Corvus is not in material breach of this Agreement and has not received any written notice pursuant to Clause 12.2.1.

**13 Consequences of Termination**

13.1 In the event of termination of this Agreement for any reason:

13.1.1 All rights and licenses granted by Vernalis to Corvus under this Agreement shall immediately terminate; and

13.1.2 All outstanding sums payable by Corvus to Vernalis as of the effective date of such termination shall immediately become due and payable.

13.2 If Corvus terminates this Agreement pursuant to Clause 12.3 (*termination at will*) then:

13.2.1 Corvus shall, at Vernalis' election made in writing within thirty (30) days after the effective date of termination of this Agreement (such election to be made in Vernalis' sole discretion), and hereby does effective as of the date Vernalis provides such written election to Corvus, grant Vernalis an exclusive, royalty-bearing (to the extent provided in Clause 13.2.2), irrevocable, perpetual, sub-licensable (through multiple tiers), transferable license under all Corvus IP claiming or covering inventions, technology or Know How actually used in connection with, or integrated into, the Development, Manufacture or Commercialization of the Vernalis Licensed Compounds or Licensed Products, solely to Exploit the Vernalis Licensed Compound and Licensed Products in the Field in the Territory; and

13.2.2 if there has been at least one [***] of Licensed Product in [***] for which all primary and secondary endpoints in a defined patient population have been met, the licence set forth in Clause 13.2.1 shall be royalty-bearing at a rate of [***] of Net Sales of such Licensed Product sold for the same Indication as was studied in such [***].

13.3 If Vernalis terminates this Agreement pursuant to Clause 12.2.1 (material breach), 12.2.2 (challenge to IP) or 12.2.3 (insolvency), Corvus shall and hereby does, effective as of the effective date of termination of this Agreement, grant Vernalis an exclusive, irrevocable, perpetual, royalty-free, sub-licensable (through multiple tiers), transferable license under all Corvus IP claiming or covering inventions, technology or Know How actually used in connection with, or integrated into, the Development, Manufacture or Commercialization of the Vernalis Licensed

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



Compounds or Licensed Products, solely to Exploit the Vernalis Licensed Compound and Licensed Products in the Field in the Territory.

13.4 Where the Agreement is terminated pursuant to Clause 12.2 or 12.3, within three (3) months of termination Corvus shall return to Vernalis or, at Vernalis' request, destroy any in-process and completed GMP and non GMP material containing or comprising any Vernalis Licensed Compound or Licensed Product and any samples of backup compounds and intermediates. If Corvus returns such items to Vernalis, Vernalis shall reimburse Corvus its direct costs of obtaining such items within thirty (30) days after Vernalis receives such items pursuant to this Clause 13.4.

13.5 In the event of a license being granted to Vernalis pursuant to Clause 13.2 or 13.3, with respect to any Corvus IP, Corvus shall promptly supply Vernalis with copies of all [Documents embodying the Corvus Background Know How or Corvus Arising Know How (as applicable) licensed to Vernalis pursuant to Clause 13.2 or 13.3 for use in Exploiting the Vernalis Licensed Compound and Licensed Products in the Field in the Territory.

13.6 If Vernalis, its Affiliates or licensees practices the rights licensed to it pursuant to Clause 13.2 or 13.3, Vernalis shall indemnify Corvus as provided in Clause 10.2.

13.7 Save as may be expressly specified otherwise in this Agreement the provisions of Clauses 2.2.2, 5.2, 6.2 to 6.4 inclusive (only to the extent that any payment under these Clauses is outstanding as at the date of termination), 6.6.1, 6.6.2, 6.6.3, 6.7, 6.8, 7, 9.4, 10, 11, 13, 14, 16, 17, 18, 19, 20, 22 and 24 shall survive termination of this Agreement.

**14 Assignment and Change of Control**

14.1 This Agreement and the licenses herein granted shall be binding upon and inure to the benefit of the successors in interest of the respective Parties. Neither this Agreement nor any interest hereunder shall be assignable by either Party without the written consent of the other, such consent not to be unreasonably withheld or delayed, provided, however, that:

14.1.1 Vernalis may assign this Agreement or any part of its rights and obligations hereunder to any Affiliate or to any company with which Vernalis may merge or consolidate, or to which it may transfer all or substantially all of its assets to which this Agreement relates, without obtaining the consent of Corvus;

14.1.2 Corvus may assign or novate this Agreement or any part of its rights and obligations hereunder to any Affiliate or to any person with similar or greater financial resources and expertise as Corvus, provided such person is [***]. If Corvus wishes to assign or novate this Agreement or any part of its rights and obligations hereunder to any person which does not meet the above criteria then it shall not do so without Vernalis's prior written consent (such consent not to be unreasonably withheld or delayed),

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



and provided always that such Affiliate or other permitted assignee undertakes in writing to such other Party to be bound by the terms of this Agreement.

Any assignment not in compliance with this Clause 14.1 shall be void and of no effect.

14.2 Corvus shall immediately notify Vernalis upon the occurrence of a change in the Control of Corvus. Corvus shall make such notification to Vernalis in accordance with Clause 20, and provide Vernalis with reasonable details of such change in the Control of Corvus. The third party acquiring Corvus shall continue to make Milestone and Royalty payments to Vernalis under Clauses 6.2, 6.3 and 6.4.

**15 Force Majeure**

15.1 A Party shall not be liable for a failure to perform any of its obligations under this Agreement (other than the obligations on Corvus to make payments to Vernalis under Clause 6) during the period and to the extent that that Party is prevented or hindered from complying with them by any

cause beyond its reasonable control including (insofar as beyond such control) strikes, lock-outs, labor disputes, act of God, war, riot, civil commotion, terrorism, epidemic disease, accident, fire, flood, storm, earthquake (each a "**Force Majeure Event**"). The affected Party shall give notice to the other Party of the Force Majeure Event and its effect on its ability to perform its obligations and shall use all reasonable efforts to address the relevant event. If the notice is not given by the affected Party within a reasonable period after that Party knew or ought to have known of the Force Majeure Event, it shall remain liable to the other Party for the consequences of its failure to perform.

15.2 The exemption provided by Clause 15.1 shall be granted to the relevant Party for as long as the Force Majeure Event persists; provided that if it shall persist for a continuous period of more than [***] the Party not affected by the Force Majeure Event may terminate this Agreement on [***] notice, with the corresponding consequences of termination as if such termination has been by the Party not affected pursuant to Clause 12.2.1.

**16 Governing Law and Jurisdiction**

This Agreement and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims) shall be governed by and construed in accordance with English law. The Parties irrevocably agree that the English courts shall have exclusive jurisdiction to settle any dispute or claim that arises out of or in connection with this Agreement or its subject matter or formation (including non-contractual disputes or claims).

**17 Waiver**

17.1 The failure on the part of either Party to exercise or enforce any right conferred upon it hereunder shall not be deemed to be a waiver of any such right or operate to bar the enforcement thereof at any time or times thereafter.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**18 Severance of Terms**

18.1 If any provision or part-provision of this Agreement shall be held to be illegal, void, invalid or unenforceable under the law of any jurisdiction:

18.1.1 that provision or part-provision shall, to the extent required, be deemed to be deleted, and the validity and enforceability of the other provisions of this Agreement shall not be affected; and

18.1.2 the legality, validity and enforceability of the whole of this Agreement in any other jurisdiction shall not be affected.

Additionally, the Parties will work in good faith to replace the severed provision with one achieving the purpose of the severed provision that is valid and enforceable.

**19 Entire Agreement/Variations**

19.1 This Agreement, together with all Schedules hereto, constitute the whole agreement between the Parties and supersede any previous agreement between the Parties relating to its subject matter. Each Party acknowledges that in entering into this Agreement, it does not rely on any representation, warranty or other provision, except as expressly provided for under this Agreement.

19.2 No variation, amendments, modification or supplement to this Agreement shall be valid unless agreed in writing in the English language and signed by a duly authorized representative of each Party.

**20 Notices**

20.1 Any notice or other communication required or permitted to be given by either Party under this Agreement shall be effective when delivered, if delivered by hand or by electronic facsimile, or five (5) Business Days after mailing if mailed by registered or certified mail (postage prepaid and return receipt requested), or two (2) Business Days after deposit with a courier if sent by an internationally recognised courier, and shall be addressed to each Party at the addresses set out below or such other address as may be designated by notice pursuant to this Clause 20.1.

20.2 Address for notices:

**Corvus:**

Address: Corvus Pharmaceuticals, Inc.
863 Mitten Road
Suite 102
Burlingame, CA 94010

For the attention of: Chief Executive Officer

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Vernalis:**

| | |
|---|---|
| Address: | Vernalis (R&D) Limited<br>100 Berkshire Place<br>Wharfedale Road<br>Winnersh<br>Berkshire<br>RG41 5RD, UK |
| Fax number: | +44 (0) 118 938 0001 |
| For the attention of: | Company Secretary |

**21 Counterparts**

This Agreement may be executed in any number of counterparts, each of which, when executed, shall be an original, and all the counterparts together shall constitute one and the same instrument.

**22 This Agreement not to Constitute a Partnership**

Nothing in this Agreement and no action taken by the Parties pursuant to this Agreement shall constitute or be deemed to constitute a partnership, association, joint venture or other co-operative entity between the Parties and neither Party shall have any authority to bind the other in any way except as provided in this Agreement.

**23 Costs**

Each Party shall bear its own costs, legal fees and other expenses incurred in the negotiation, preparation, execution and implementation of this Agreement and the documents referred to herein.

**24 Announcements**

24.1 Subject to Clause 11, neither Party shall issue any press release, publication or other similar public communication relating to this Agreement, its subject matter or the transactions covered by it, or the activities of the Parties under or in connection with this Agreement (a "**Publication**") without first obtaining written permission from the other Party, except for information that has been previously disclosed publicly without breach of this Clause 24.1.

24.2 Either Party may publish and disseminate the press release attached at Schedule 4 or parts thereof or the facts and matters set out therein.

**25 Anti-Bribery and Anti-Corruption**

25.1 Both Parties shall, to the extent applicable to the Parties' performance of activities under this Agreement, including the place of such performance, and/or if required by the Relevant Requirements (as defined below):

25.1.1 at all times comply with all applicable laws, statutes, regulations and codes relating to anti-bribery and anti-corruption, including the Bribery Act 2010 ("**Relevant Requirements**");





25.1.2 not do anything which if done in the UK would constitute an offence under sections 1, 2 or 6 of the Bribery Act 2010 (respectively, bribing another person, being bribed and bribing a foreign public official);

25.1.3 have and shall maintain in place throughout the Term its own policies and procedures to ensure compliance with the Relevant Requirements, and Clause 25.1.2, and will enforce them where appropriate;

25.1.4 promptly report to the other Party any request or demand for any undue financial or other advantage of any kind received in connection with the performance of this Agreement;

25.1.5 immediately notify the other Party in writing if a foreign public official becomes an officer or employee of the notifying Party or acquires a direct or indirect interest in the notifying Party.

25.2 Each Party shall be solely responsible for the observance and performance of the Relevant Requirements by each of its Affiliates, and in the case of Corvus by each Sublicensee, and shall be directly liable to the other Party for any breach by its Affiliates, and in the case of Corvus any breach by any Sublicensee, of any of the Relevant Requirements. Notwithstanding the foregoing, each Affiliate and Sublicensee shall be required to comply with the Relevant Requirements to the extent applicable to their respective performance of activities under this Agreement, including the place of such performance, and/or if required by the Relevant Requirements.

25.3 For the purpose of this Clause 25, the meaning of foreign public official shall be determined in accordance with the Bribery Act 2010 (and any guidance issued under section 9 of that Act).

**In witness whereof** the Parties have executed this Agreement as of the Commencement Date.

**Signed** by

Title CEO

Date 25 February 2015

For and on behalf of **Vernalis (R&D) Limited** /s/ Ian Garland

**Signed** by Richard Miller

Title CEO

Date Feb 25, 2015

For and on behalf of **Corvus Pharmaceuticals, Inc.** /s/Richard Miller

Signature Page

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**Schedule 1**
**Vernalis Patent Rights**

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Part A: Adeno VII Patent Rights**

**[***]**

**Part B: Non-Adeno VII Patent Rights**

**“[***]” patent family**

**[***]**

**“[***]” patent family**

**[***]**

**“[***]” patent family**

**[***]**

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Schedule 2**
**In-process and completed V81444 GMP and non GMP material, Vernalis Licensed Compounds and intermediates**

[***]

**Specification 1**

[***]

**Specification 2**

[***]

**Specification 3**

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Schedule 3**
**Vernalis Bank Details**

| | |
|---|---|
| **Account No** | [***] |
| **Sort Code** | [***] |
| **Currency** | [***] |
| **Account Name** | [***] |
| **SWIFTBIC** | [***] |
| **IBAN** | [***] |
| **Bank Name and Address** | [***], |
| | [***], |
| | [***], |
| | [***], |
| | [***], |
| | [***], |
| | [***] |

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Schedule 4**
**Agreed Press Release**

[DATE]

LSE: VER

**Vernalis licenses proprietary adenosine receptor antagonist technology, including lead compound V81444, for, development and commercialisation**

Vernalis plc today announces that it has licensed exclusive, worldwide rights in its adenosine receptor antagonist programme, including the lead drug candidate, V81444, for use in all therapeutic applications to a well-funded, US-based biotechnology company. The transaction includes a $1 million upfront payment and has the potential for Vernalis to earn over $200 million subject to development, regulatory and sales milestones being achieved. In addition there are single digit royalties payable if a product reaches the market, with the potential to reach double digit royalties in certain circumstances.

The licensing party is a private US company, that has raised a large Series A round with leading venture capital investors, and brings a management team with a wealth of clinical and commercial expertise and experience to this programme.

V81444 is a patented molecule that has been evaluated in phase I and II clinical trials under an IND in the US. Its initial development was focused on ADHD and other neurological diseases.

Commenting on the new relationship, Ian Garland, CEO of Vernalis said “We are delighted to have secured an ideal partner for V81444 and our adenosine receptor antagonist programme and look forward to the development of V81444 and this interesting class of compounds for the potential benefit of patients worldwide.”

— ends —

**Enquiries**:

**Vernalis plc:**
Ian Garland, Chief Executive Officer — **+44 (0) 118 938 0015**
David Mackney, Chief Financial Officer

**Canaccord Genuity Limited (Nominated Adviser):** — **+44 (0) 20 7523 8350**
Dr Julian Feneley
Henry Fitzgerald-O'Connor
Pippa Underwood

**Shore Capital (Joint Broker):** — **+44 (0)20 7408 4090**
Bidhi Bhoma
Toby Gibbs

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Brunswick Group:** — **+44 (0) 20 7404 5959**
Jon Coles

**Notes to Editors**

**About Vernalis**

Vernalis is a revenue generating development stage pharmaceutical company with significant expertise in drug development. The Group has one marketed product, frovatriptan for the acute treatment of migraine, an exclusive licensing agreement to develop and commercialise multiple novel products focussed on the US prescription cough cold market as well as seven programmes in its NCE development pipeline. Vernalis has also significant expertise in fragment and structure based drug discovery which it leverages to enter into collaborations with larger pharmaceutical companies. The Company's technologies, capabilities and products have been endorsed over the last five years by collaborations with leading pharmaceutical companies, including AKP, Biogen Idec, Endo, GSK, Genentech, Lundbeck, Menarini, Novartis, Servier and Tris.

For further information about Vernalis, please visit www.vernalis.com.

**Vernalis Forward-Looking Statement**

*This news release may contain forward-looking statements that reflect the Company's current expectations regarding future events including the clinical development and regulatory clearance of the Company's products, the Company's ability to find partners for the development and commercialisation of its products, as well as the Company's future capital raising activities. Forward-looking statements involve risks and uncertainties. Actual events could differ materially from those projected herein and depend on a number of factors including the success of the Company's research strategies, the applicability of the discoveries made therein, the successful and timely completion of clinical studies, the uncertainties related to the regulatory process, the ability of the Company to identify and agree beneficial terms with suitable partners for the commercialisation and/or development of its products, as well as the achievement of expected synergies from such transactions, the acceptance of frovatriptan and other products by consumers and medical professionals, the successful integration of completed mergers and acquisitions and achievement of expected synergies from such transactions, and the ability of the Company to identify and consummate suitable strategic and business combination transactions.*

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Schedule 5**
**[***]**

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Schedule 6**
**V81444**

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Schedule 7**
**Corvus Pre-Clinical Research Plan**

The overall goal of the research team for the V81444 (A2a receptor antagonist) program is to [***].

- [***]
  - [***]:
    - [***]
  - [***]
    - [***]
  - [***]
- [***]
  - [***]
  - [***]
- [***]
  - [***]
  - [***]
  - [***]
  - [***]
    - [***]
  - [***]
- [***]
- [***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**Schedule 8**
**Corvus Clinical Plan**

**Phase Ib Trial**

[***].

[***].

[***].

[***].

**Phase II Trial**

[***].

[***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**Exhibit 10.15**

Execution Copy

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**PHASE I/IB COMBINATION STUDY AGREEMENT**

**BY AND BETWEEN**

**GENENTECH, INC.**

**AND**

**CORVUS PHARMACEUTICALS, INC.**

---

**TABLE OF CONTENTS**



[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



---

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



---

**PHASE I/IB COMBINATION STUDY AGREEMENT**

**THIS PHASE I/IB COMBINATION STUDY AGREEMENT** ("**Agreement**") is made and entered into, effective as of October 5, 2015 ("**Effective Date**"), by and between Genentech, Inc., a Delaware corporation, having a principal place of business at 1 DNA Way, South San Francisco, California 94080 ("**Genentech**") and Corvus Pharmaceuticals, Inc., a Delaware corporation, having a principal place of business at 863 Mitten Road, Suite 102, Burlingame, CA 94010 ("**Corvus**"). Genentech and Corvus are each referred to herein individually as a "**Party**" and collectively as the "**Parties**."

**RECITALS**

**A.** Genentech is developing the Genentech Molecule (defined below) for the treatment of certain tumor types;

**B.** Corvus is developing the Corvus Molecule (defined below) for the treatment of certain tumor types.

**C.** Corvus wishes to conduct a Phase I/Ib clinical study evaluating the safety and tolerability of the Corvus Molecule, in patients with selected incurable cancers, as a single agent and in combination with the Genentech Molecule.

**D.** Genentech and Corvus, consistent with the terms of this Agreement, desire to collaborate as more fully described herein, including by providing the Genentech Molecule and the Corvus Molecule for the Study.

**E.** Corvus is willing to provide to Genentech the Study Data, Samples and Final Study Report (each, defined below).

**AGREEMENT**

**NOW, THEREFORE,** for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Genentech and Corvus agree as follows:

**ARTICLE 1**
**DEFINITIONS**

Capitalized terms used in this Agreement shall have the meanings set forth below, unless otherwise specifically indicated.

**1.1** "**Affiliate**" of a Party means any corporation or other business entity that, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with such Party. For purposes of this definition, the term "control" (including, the correlative meanings, "controlled by" and "under common control with") means (a) the direct or indirect ownership of more than fifty percent (50%) of the stock having the right to vote for





directors thereof (or general partnership interests) or (b) the ability to otherwise control the decisions of the board of directors or equivalent governing body thereof. Notwithstanding the foregoing, for purposes of this Agreement, Chugai Pharmaceutical Co., Ltd (for purposes of this definition, "**Chugai**") and FMI Medicine, Inc. (for purposes of this definition, "**FMI**"), and all business entities controlled by Chugai or FMI, shall not be considered Genentech's Affiliates, unless and until Genentech elects to include one or more of such business entities as its Affiliate, by providing written notice to Corvus of such election.

**1.2** "**Ancillary Agreements**" means the Quality Agreement and the PV Agreement.

**1.3** "**Applicable Law**" means all (a) federal, state, local, national and regional statutes, laws, rules, regulations and directives applicable to a particular activity under this Agreement (including the performance of clinical trials and medical treatment) that may be in effect from time to time (including GCP, GLP, GMP and other laws promulgated by Regulatory Authorities); (b) applicable data protection and patient privacy laws and requirements (including those specified in the EU Data Protection Directive and the regulations issued under HIPAA); (c) export control and economic sanctions regulations that prohibit the shipment of United States-originated products and technology to certain restricted countries, entities and individuals; (d) anti-bribery and anti-corruption laws pertaining to interactions with government agents, officials and representatives (including the United States Foreign Corrupt Practices Act); (e) laws and regulations governing payments to healthcare providers; (f) laws and requirements governing ineligibility to participate in federal, state or other healthcare programs (including debarment under 21 USC § 335a, disqualification under 21 CFR §312.70 or § 812.119, sanctions by a Federal Health Care Program (as defined in 42 USC § 1320a-7b(f)), including the federal Medicare or a state Medicaid program); and (g) successor or replacement statutes, laws, rules, regulations and directives relating to the foregoing.

**1.4** "**Business Day**" means a day, other than a Saturday, Sunday or day on which commercial banks located in San Francisco, California are authorized or required by law or regulation to close.

**1.5** "**Case Report Form**" means the form (whether paper or electronic) for collecting certain data about each Subject, including the data collected for such Subject.

**1.6** "**CFR**" means the United States Code of Federal Regulations.

**1.7** "**Collaboration IND**" means the IND that includes the Protocol.

**1.8** "**Collaboration Invention**" means any invention, discovery or creation (including materials and Know-How but excluding Study Data and Sample Data) that is first conceived or reduced to practice by a Party (directly or by a Third Party on its behalf) or jointly by the Parties, in each case, (1) [***]; (2)[***]; or (3) [***]. Collaboration Inventions may include new uses, compositions or formulations [***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



[***].

**1.9** "**Combination**" means the Genentech Molecule and the Corvus Molecule used in combination, but not co-formulated together.

**1.10** **Competitive Product**" means any compound or molecule that is [***].

**1.11** "**Confidential Information**" means nonpublic information (including Know-How) (i) that is disclosed by or on behalf of one Party to the other or its designee in connection with this Agreement (whether orally, electronically, visually or in writing) and/or (ii) Joint Confidential Information.

**1.12** "**Corvus Molecule**" means the investigational medicinal product identified as CPI-444 in final form for administration to Subjects in the Study. CPI-444 is an investigational adenosine-2A ($A_{2A}$) receptor antagonist that has the following chemical formula: [***].

**1.13** "**CRO**" means a Third Party service provider (e.g., a person or organization) that assumes one or more obligations of the Sponsor, in accordance with Title 21 of the CFR, or the equivalent assumption of obligations in a jurisdiction other than the United States.

**1.14** "**Database Lock**" means the database lock of the Study Data after Study Completion.

**1.15** "**Data Review Committee**" or **"DRC"** is defined in Section 3.2(a).

**1.16** "**EMA**" means, collectively, the European Medicines Agency and the European Commission (with respect to its functions related to marketing authorizations for medicinal products), or any successor entity thereto performing similar functions.

**1.17** "**FDA**" means the United States Food and Drug Administration, or any successor entity thereto performing similar functions.

**1.18** "**Final Study Report**" is defined in Section 1.1(c).

**1.19** "**GCP**" means, as to the United States and the European Union, applicable good clinical practices (for the design, conduct, performance, monitoring, auditing, recording, analyses, and reporting of clinical trials that provides assurance that the data and reported results are credible and accurate, and that the rights, integrity, and confidentiality of trial subjects are protected) in effect in the United States and the European Union, respectively, during the term of the Agreement and, with respect to any other jurisdiction, clinical practices equivalent to good clinical practices then in effect in the United States or the European Union.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**1.20** "**Genentech Molecule**" means atezolizumab in final form for administration to Subjects in the Study. Atezolizumab is an investigational monoclonal antibody that targets PD-L1 (programmed death-ligand 1) and is also identified as an anti-PD-L1 antibody (MPDL3280A and RG7446).

**1.21** "**GLP**" means, as to the United States and the European Union, applicable good laboratory practices in effect in the United States and the European Union, respectively, during the term of the Agreement and, with respect to any other jurisdiction, laboratory practices equivalent to good laboratory practices then in effect in the United States or the European Union.

**1.22** "**GMP**" means, as to the United States and the European Union, applicable good manufacturing practices in effect in the United States and the European Union, respectively, during the term of the Agreement and, with respect to any other jurisdiction, manufacturing practices equivalent to good manufacturing practices then in effect in the United States or the European Union.

**1.23** "**HIPAA**" means, collectively, the United States Health Insurance Portability and Accountability Act of 1996, and the regulations promulgated thereunder, as amended from time to time.

**1.24** "**IND**" means an investigational new drug application filed or to be filed with the FDA as described in 21 CFR Part 312, or the equivalent filing with a relevant Regulatory Authority in any jurisdiction (including an investigational medicinal product dossier filed or to be filed with the EMA or a clinical trial application filed or to be filed with Health Canada), together with any amendments, supplements or other additions or deletions thereto.

**1.25** "**Investigator**" is defined in 21 CFR § 312.3(b) and, under this Agreement, means an individual who conducts the Study at a Participating Site in any jurisdiction.

**1.26** "**IRB**" means an institutional review board as described in 45 CFR Part 46, or the equivalent entity (such as an independent ethics committee) in any jurisdiction.

**1.27** "**JDC Chair**" is defined in Section 3.1(a).

**1.28** "**JDC Co-Leader**" is defined in Section 3.1(a).

**1.29** "**Joint Development Committee**" or **"JDC"** is defined in Section 3.1(a).

**1.30** "**Joint Patent**" is defined in Section 6.4(a).

**1.31** "**Know-How**" means all information, unpatented inventions (whether or not patentable), improvements, practices, formula, trade secrets, techniques, methods, procedures, knowledge, results, test data (including pharmacological, toxicological, pharmacokinetic and pre-clinical and clinical information and test data, related reports, structure-activity relationship data and statistical analysis), analytical and quality control data, protocols, processes, models, designs,

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



and other information regarding research, discovery, development, marketing, pricing, distribution, cost, sales and manufacturing. Know-How shall not include any Patents.

**1.32** "**Molecules**" means the Genentech Molecule and the Corvus Molecule. A "**Molecule**" means either the Genentech Molecule or the Corvus Molecule, as applicable.

**1.33** "**Molecule Supply Plan**" means the plan for supplying the Genentech Molecule for the Study attached hereto as Exhibit C.

**1.34** "**NDA**" means a new drug application filed or to be filed with the FDA as described in 21 CFR Part 314, or the equivalent filing with a relevant Regulatory Authority in any jurisdiction (including a marketing authorization application filed or to be filed with the EMA or Health Canada), together with any amendments, supplements or other additions or deletions thereto.

**1.35** "**Participating Site**" means a hospital or other institution participating in the Study.

**1.36** "**Patents**" means all patents and patent applications and any patents issuing therefrom or claiming priority to, in any country, including any reissues, extensions, supplementary protection certificates, registrations, divisions, continuations, continuations-in-part, reexaminations, substitutions or renewals thereof.

**1.37** **"PD-1 Antagonist"** means any molecule that [***].

**1.38** **"PD-L1 Antagonist"** means any molecule that [***].

**1.39** "**Project Participants**" means Investigators, Subinvestigators, Participating Sites, CROs, drug distributors, vendors and subcontractors or agents of Corvus (or its Affiliates), who conduct or assist in conducting the Study or provide related services.

**1.40** "**Prosecution and Maintenance**" or **"Prosecute and Maintain"** with regard to a given Patent, means the preparation, filing, prosecution and maintenance of such Patent, as well as any ex parte and inter partes proceedings, including reexaminations, reissues, applications for patent term extensions, interferences, derivation proceedings, post-grant review proceedings, oppositions and other similar administrative proceedings with respect to such Patent.

**1.41** "**Protocol**" means the mutually agreed protocol by the Parties attached hereto as Exhibit A, titled "A Phase 1/1b, Open-Label, Multicenter, Repeat-Dose, Dose Selection Study of CPI-444 as Single Agent and in Combination with Atezolizumab in Patients with Selected Incurable Cancers," which may be amended by the JDC in accordance with this Agreement.

**1.42** "**PV Agreement**" is defined in Section 2.7(a).

**1.43** "**Quality Agreement**" is defined in Section 4.3.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**1.44** "**Regulatory Authority**" means (a) the FDA; (b) the EMA; or (c) any regulatory authority or body performing similar functions in any jurisdiction anywhere in the world.

**1.45** "**Regulatory Documentation**" means any document submitted to a Regulatory Authority, including all INDs, NDAs, drug master files, correspondence with Regulatory Authorities, periodic safety update reports, adverse event files, complaint files, inspection reports and manufacturing records.

**1.46** "**Roche Group**" means Genentech and its Affiliates.

**1.47** "**Sample Analyses**" is defined in Section 5.2.

**1.48** "**Sample Analysis Plan**" means the plan, attached as Exhibit B, that outlines the Sample Analyses to be performed by Corvus or Genentech and the priority for performing such Sample Analysis.

**1.49** "**Sample Data**" is defined in Section 5.3(a).

**1.50** "**Samples**" is defined in Section 5.2(a).

**1.51** "**Specifications**" means, with respect to a Molecule, the set of requirements for such Molecule set forth in the Quality Agreement.

**1.52** "**Sponsor**" is defined in 21 CFR § 312.3(b) and, under this Agreement, means the entity that takes responsibility for and initiates the Study in any jurisdiction.

**1.53** "**Study**" means the Phase I/Ib clinical study to be sponsored and conducted by Corvus as set forth in the Protocol. The principal purpose of the Study is a preliminary determination of the safety of Corvus Molecule as a single agent and in combination with Genentech Molecule, consistent with the requirements further described in 21 CFR § 312.21(a) (as may be amended) or foreign counterpart thereto, or a similar clinical study in a country other than the United States. [***].

**1.54** "**Study Completion**" means the last Subject visit specified in the Protocol for primary endpoint evaluation.

**1.55** "**Study Data**" means all data (including raw data), Case Report Forms, findings, conclusions and other results, in all cases, from the single agent arm and Combination arm of the Study and the Final Study Report, including investigator reports (both preliminary and final), statistical analyses and expert opinions and reports. Study Data excludes Sample Data.

**1.56** "**Subinvestigator**" is defined in 21 CFR § 312.3(b) and, in the event the Study is conducted by a team at a Participating Site, means an individual designated by the Investigator to be the responsible leader of such team.

**1.57** "**Subject**" is defined in 21 CFR § 312.3(b) and, under this Agreement, means a human who participates in the Study in any jurisdiction.





**1.58** "**Third Party**" means any person or entity other than a Party or its Affiliates.

## ARTICLE 2
## CONDUCT OF THE STUDY; REGULATORY MATTERS

**2.1 Overview.** The Parties wish to collaborate regarding the Study to be conducted under this Agreement. Each Party shall use commercially reasonable efforts to perform its obligations hereunder.

**2.2 Sponsor.** Corvus shall be the Sponsor of the Study. Corvus shall conduct, and use commercially reasonable efforts to cause all Project Participants to conduct, the Study in accordance with this Agreement, the Protocol and Applicable Law. Corvus shall be responsible for obtaining all approvals and clearances necessary to conduct the Study, including approvals from Regulatory Authorities and IRBs and customs clearances. In no event shall Genentech or any member of the Roche Group be deemed a Sponsor of the Study.

**2.3 Collaboration IND; Protocol.**

**(a) Collaboration IND**. Corvus shall prepare and file IND #126559 for the Study ("**Collaboration IND**"). Subject to the ownership provisions of Sections 5.1, 5.3 and 6.1, Corvus shall own all right, title and interest in and to the Collaboration IND and related Regulatory Documentation.

**(b) Protocol**. The Protocol for such Collaboration IND is set forth in Exhibit A. Any amendments to the Protocol shall be reviewed and approved by Genentech in accordance with Section 3.1. Subject to the terms of this Agreement, Corvus shall be responsible for preparing and filing all necessary Regulatory Documentation for the Collaboration IND and the Study.

**(c) Investigator's Brochure for the Combination**. Corvus shall prepare an investigator's brochure for the Combination. Genentech shall provide to Corvus those portions of the investigator's brochure (and any updates) for the Genentech Molecule that pertain to safety matters and other information that may be required by Corvus to prepare the investigator's brochure for the Combination. Corvus shall provide a draft of the Combination investigator's brochure to Genentech and shall duly consider Genentech's comments.

**2.4 Enrollment.** Commencing on or after the date the PV Agreement is executed by the Parties, Corvus may begin enrolling Subjects in the Study in compliance with Applicable Law. Corvus shall be responsible for tracking enrollment at Participating Sites which shall not exceed the maximum number of Subjects specified in the Protocol, unless such number is increased by an amendment to the Protocol.

**2.5 Project Participants.** Corvus shall be solely responsible for the performance and conduct of the Project Participants, including monitoring the conduct of the Study at the Participating Sites. Corvus shall be solely responsible for negotiating and executing the necessary agreements with all Project Participants. Corvus shall ensure that (a) all such

agreements include terms and conditions that are necessary for Corvus to comply with the terms and conditions of this Agreement (including the confidentiality provisions in Article 7); (b) all Project Participants are appropriately qualified and satisfy the requirements of Section Article 1; and (c) the compensation being paid to a Project Participant under its agreement with Corvus for the Study constitutes the fair market value of the services to be provided. In no event shall any agreement with a Project Participant represent that any member of the Roche Group is a Sponsor or is otherwise responsible for the Study.

**2.6 Regulatory Matters.**

**(a) Generally.** Corvus shall comply with all guidance and direction provided by Regulatory Authorities and IRBs with jurisdiction over the Study. Corvus shall perform all regulatory obligations related to the Study, including preparation and submission of Regulatory Documentation for the Study, in accordance with the Protocol and Applicable Law.

**(b) Interactions with Regulatory Authorities.** Corvus shall promptly provide Genentech with a copy of any material notice, inquiry or correspondence that Corvus (or a Project Participant) receives from a Regulatory Authority regarding the Study ("**Material Regulatory Notice**"), including any serious safety matter related to a Party's Molecule or the Combination and any inspection or investigation by a Regulatory Authority. Genentech shall have the right (but not the obligation) to provide comments to any response to such Material Regulatory Notice and to participate in any discussions with a Regulatory Authority to the extent permitted by such Regulatory Authority. Without limiting Genentech's obligations under Section 2.9, Genentech shall promptly provide Corvus with a copy of any [***].

**(c) Letter of Cross-Reference.** Promptly, but no later than [***], after the Effective Date, Genentech shall provide to Corvus a letter of cross-reference authorizing Corvus to reference certain information previously provided by Genentech in its INDs for the Genentech Molecule as support for the Combination portion of the Study in accordance with 21 CFR § 312.23(b). Such letter of cross-reference shall remain in full force and effect unless it is withdrawn by Genentech due to termination of this Agreement by a Party.

**2.7 Adverse Experience Reporting.**

**(a)** Prior to enrollment of Subjects in the Study, the Parties shall enter into a pharmacovigilance agreement setting forth the Parties' responsibilities and obligations with respect to the procedures and timeframes for compliance with Applicable Law pertaining to safety reporting of the respective Molecules and the Combination ("**PV Agreement**").

**(b)** The Parties shall cooperate in determining how to respond to adverse experience reports under the Study. For adverse experience reports solely related to the Corvus Molecule, Corvus shall have final decision making authority. For adverse experience reports solely related to the Genentech Molecule, Genentech shall have final decision making authority. For adverse experience reports solely related to the Combination, [***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



[***]. Notwithstanding the foregoing, Corvus may submit a response to Regulatory Authorities if required by a regulatory deadline.

**(c)** Corvus shall be responsible for reporting adverse events from the Study to Regulatory Authorities in accordance with Applicable Law, including 21 CFR § 312.32.

**2.8 Documentation, Updates and Final Study Report.**

**(a) Documentation.** Each Party shall maintain reports and documentation arising in connection with the Study in good scientific manner and in compliance with Applicable Law. Each Party shall provide to the other Party all such reports and documentation arising from the Study (including reports of interim analyses, if applicable) reasonably requested to enable each Party to comply with any of its legal, regulatory and/or contractual obligations, or in response to any request by a Regulatory Authority.

**(b) Updates.** Corvus shall provide written updates regarding the status of the Study (including enrollment status, project timelines, Genentech Molecule inventory and Genentech Molecule forecasting) to Genentech on a quarterly basis within [***] of the end of each calendar quarter or such other time as reasonably requested by Genentech. Following receipt of such written update, Genentech may request that Corvus make available personnel and/or Project Participants (if requested by Genentech) responsible for the Study on a reasonable basis to address Genentech's questions regarding such written update, either in person or by telephone. Genentech shall provide a list of questions and/or topics for discussion in advance of such meeting.

**(c) Final Study Report.** Corvus shall complete the Study as outlined in the Protocol. Corvus shall summarize the findings of the Study in a Final Study Report. Corvus shall provide the Final Study Report to Genentech within [***] after Database Lock. "**Final Study Report**" means a formal clinical study report documenting and summarizing the results and interpretation of the Study, including the trial design, trial objectives, patient assessment, data analysis, results, risk/benefit analysis, safety and effectiveness, in accordance with the requirements of then-existing Regulatory Authority rules, regulations and guidance on the structure and content of clinical study reports.

**2.9 Genentech Study Responsibilities.** In addition to Genentech's obligations to supply the Genentech Molecule under Section 4.2, Genentech shall provide and make available to Corvus any necessary information about the Genentech Molecule to support Corvus in conducting the Study. Further, Genentech shall provide reasonable assistance to Corvus' to support Corvus' interactions with Regulatory Authorities and IRBs in connection with the Study.

**2.10 Costs.** [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**2.11 Additional Studies.** During the Term and continuing [***], Corvus agrees to negotiate exclusively with Genentech for a period of [***] prior to entering into any clinical study or clinical development agreement with a Third Party involving the combination of Corvus Molecule and any PD-L1 Antagonist or PD-1 Antagonist. During such [***], the Parties shall discuss in good faith the terms and conditions for collaborating with each other to conduct further clinical studies of the Combination, including terms [***].

**2.12 Right of First Negotiation.**

During the Term and continuing through [***] ("**RFN Period**"), Corvus shall negotiate exclusively with Genentech for a period of up to [***] prior to entering into any agreement with a Third Party for a license relating to the development and commercialization of the Corvus Molecule (a "**Corvus License**"). Notwithstanding the foregoing, if Genentech enters into a license with or acquires a Third Party with a Competitive Product during the RFN Period, Genentech will notify Corvus and all of Corvus' obligations under this Section 2.12(a) will expire on the effective date of such transaction. Further, Genentech will thereafter adopt reasonable procedures to prevent any disclosure and/or use of Confidential Information of Corvus or Joint Confidential Information, as the case may be, to such Third Party and provide notice to Corvus describing such procedures as soon as practicable. For clarity, the obligations and covenants set forth in this Section 2.12(a) expressly exclude and shall not limit the separate activities of Genentech's Affiliates, including the Roche pRED (Research and Early Development) organization.

**(b)** If Corvus is interested in negotiating with Genentech and/or a Third Party the terms of a Corvus License during the RFN Period, it shall so notify Genentech in writing. Thereafter, the Parties shall negotiate, on an exclusive basis, the terms and conditions of a potential Corvus License for a period of [***] after Genentech receives such notice from Corvus, or such longer time period as the Parties may mutually agree in writing (the "**Exclusive Negotiation Term**"). If Corvus and Genentech do not reach mutually agreeable terms and conditions of a Corvus License during the Exclusive Negotiation Term, then Corvus shall be free to negotiate and enter into a Corvus License with a Third Party; provided that Corvus shall not, during the [***] period following the end of the Exclusive Negotiation Term, enter into any Corvus License with a Third Party on terms more favorable to such Third Party than those last proposed by Genentech. If Corvus enters into a Corvus License with a Third Party during the [***] following the end of the Exclusive Negotiation Term, Corvus shall so notify Genentech. Genentech shall have the right, within [***] days after Corvus enters into such Corvus License, [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



## ARTICLE 3
## GOVERNANCE

**3.1 Joint Development Committee.**

**(a) Establishment of the JDC.** Within thirty (30) days after the Effective Date, the Parties shall establish a Joint Development Committee ("**Joint Development Committee**" or "**JDC**") to oversee the Study. The JDC shall be composed of [***] representatives designated by each Party (and the Parties need not have the same number of representatives). The representatives shall be appropriate (in terms of their seniority, availability, function in their respective organizations, training and experience) for the activities then being undertaken. Each Party shall designate one of its representatives as its primary JDC contact for JDC matters (each, a Party's "**JDC Co-Leader**"). Corvus' JDC Co-Leader shall chair the Joint Development Committee ("**JDC Chair**"), including scheduling JDC meetings (at the request of either Party) and setting meeting agendas. A Party may replace any or all of its representatives (and designated JDC Co-Leader) at any time by informing the other Party's JDC Co-Leader in advance, in writing (which may be by email). The JDC shall exist during the Term, unless otherwise mutually agreed by the Parties in writing.

**(b) Responsibilities of the JDC.** The Joint Development Committee shall be responsible for the following activities:

**(i)** reviewing and approving amendments to the Protocol;

**(ii)** approving Participating Sites and Investigators;

**(iii)** reviewing the progress of the Study and making necessary joint decisions;

**(iv)** establishing the Data Review Committee (as described in Section Article 2) and deciding whether and how address its recommendations;

**(v)** evaluating and determining how to address any safety matters related to the Combination;

**(vi)** reviewing the progress of the Sample Analysis Plan and making necessary joint decisions, including subsequent amendments to the Sample Analysis Plan and determining the timing for Sample Analysis to be performed by a Party and the transfer of results to the other Party;

**(vii)** coordinating the transfer of materials and information between the Parties, including the Study Data, the Final Study Report, the Samples and the Sample Data;

**(viii)** addressing any issues that may arise in the event of a shortage of supply of Corvus Molecule or Genentech Molecule for the Study, subject to Section 4.3;

**(ix)** attempting to resolve any Disputes related to the Study; and

**(x)** performing such other functions as appropriate to further the purposes of the Study, or as otherwise specified in this Agreement.

**(c) Unanimous Decisions.** Actions and decisions to be taken by the JDC shall be made only following a unanimous vote, with each Party's representatives on the JDC

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



having collectively one (1) vote. If the JDC cannot reach unanimous agreement within [***] of a matter being brought to a vote, either Party may refer the dispute to the Parties' executives for resolution in accordance with Section 15.1 and the other provisions of Article 15. The JDC has no authority to amend, or to waive compliance with, any provisions of this Agreement.

**(d) Meetings; Attendees; Decisions.** Once established, the Joint Development Committee shall meet at least once each calendar quarter and at such other times as deemed appropriate by the JDC. The JDC may meet in person or via teleconference, video conference or the like, provided that at least one (1) meeting per calendar year shall be held in person (unless otherwise agreed by the Parties). Each Party shall bear the expense of its respective representatives' participation in JDC meetings. If a Party's representative is unable to attend a given meeting, such Party may designate a knowledgeable alternate to attend such meeting and perform the functions of such representative. Each Party may invite a reasonable number of non-voting employees, consultants or scientific advisors to attend JDC meetings, provided that such invitees are bound by appropriate confidentiality obligations. The JDC shall maintain written minutes of each JDC meeting, including all decisions made, action items assigned or completed and other appropriate matters. The JDC Chair shall prepare the initial draft minutes and provide the Genentech Co-Leader with ten (10) business days for Genentech to review and approve such minutes.

**(e) Sub-Teams; Designees.** From time to time, the Joint Development Committee may establish sub-teams to oversee particular projects or activities, and such sub-teams will be constituted and operate as determined by the JDC. From time to time, the JDC may designate individuals (by name or function) to oversee activities, and such designees will perform such activities as determined by the JDC.

**3.2 Data Review Committee.**

**(a) Establishment of the DRC; Meetings.** Under the direction of the Joint Development Committee, the Parties shall establish a Data Review Committee ("**Data Review Committee**" or "**DRC**") to monitor the safety of the Molecules being used in the Study. The DRC shall be composed of [***]. The DRC shall [***] during the Study.

**(b) Responsibilities of the DRC.** The Data Review Committee shall be responsible for performing the following functions:

**(i)** evaluating suspected dose-limiting toxicities (using criteria defined in the Protocol, if applicable) and adjudicating treatment related adverse events, based on clinical experience with the Molecules;

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**(ii)** making recommendations to the JDC to hold dosing or enrollment, if safety data require further evaluation;

**(iii)** making recommendations to the JDC to end dosing or enrollment; and

**(iv)** performing such other functions as directed by the JDC.

**(c) Advisory Body.** The Data Review Committee shall be solely an advisory body to the JDC and shall not have any power to make decisions that bind either Party.

## ARTICLE 4
## SUPPLY OF STUDY DRUGS

**4.1 Corvus Molecule.** Corvus shall use commercially reasonable efforts to supply for use in the Study, at its expense, sufficient quantities of the Corvus Molecule to conduct the Study. Corvus represents and warrants to Genentech that the Corvus Molecule used in the Study shall be manufactured in compliance with the Specifications for the Corvus Molecule and Applicable Law.

**4.2 Genentech Molecule.**

**(a) Manufacture and Supply.** Genentech shall use commercially reasonable efforts to supply for use in the, at its expense, the quantities of the Genentech Molecule specified in the Molecule Supply Plan attached hereto as Exhibit C. Genentech represents and warrants to Corvus that such Genentech Molecule shall be manufactured in compliance with: the Specifications for the Genentech Molecule, Applicable Law and the Quality Agreement. Genentech or its designee will deliver Genentech Molecule to (i) Corvus or (ii) a Project Participant as designated by Corvus or the Joint Development Committee (for purposes of Section 4.2, "**Delivery Locations**").

**(b) Delivery.** Genentech shall deliver the Genentech Molecule to the Delivery Locations in accordance with the Quality Agreement and the timelines specified in the Molecule Supply Plan or determined by the Joint Development Committee. Corvus shall require the Project Participants to (i) maintain accurate records of all Genentech Molecule received and dispensed in the conduct of the Study and (ii) properly store all Genentech Molecule, in accordance with any written instructions provided by Genentech and Applicable Law, in a secure and locked location to prevent theft or misuse.

**(c) Remaining Molecule.** Upon completion or termination of the Study, Corvus shall ensure that all unused quantities of Genentech Molecule, as well as all used vials and bottles containing the Genentech Molecule, are destroyed in accordance with Corvus' standard operating procedures and documented accordingly (including certifying such destruction in writing to Genentech), or returned to Genentech or its designated agent if requested by Genentech.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**(d) Use of Genentech Molecule.** From the Effective Date until the first to occur of Study Completion or any earlier termination of the Study, Corvus (i) has the right to use the Genentech Molecule for the purpose of conducting the Study and shall use the Genentech Molecule solely for such purpose. Corvus shall use, store, transport, handle and dispose of the Genentech Molecule in compliance with Applicable Law, the Quality Agreement and all instructions from Genentech. Corvus shall not use the Genentech Molecule for any research, development or commercial purpose; Corvus shall not attempt to derive or reverse engineer the composition or underlying information or structure of the Genentech Molecule, and in particular shall not analyze the Genentech Molecule by physical, chemical or biochemical means, except as necessary to perform its obligations under the Quality Agreement. [***]. The provisions of this Section 4.2(d) shall apply to any Third Party performing Study-related activities on behalf of Corvus *mutatis mutandis*.

**4.3 Insufficient Quantities.** In the event that a Party determines that there are insufficient quantities of the Corvus Molecule or the Genentech Molecule to reach Study Completion, such Party shall promptly provide written notice to the other Party, including what quantities of its Molecule, if any, are available for the Study. The JDC will promptly discuss how to address the shortage and allocate the available amounts of Corvus Molecule or Genentech Molecule, as applicable. Notwithstanding the foregoing, [***].

**4.4 Quality Agreement.** Within [***] of executing this Agreement, the Parties shall enter into a quality agreement establishing the quality requirements for Genentech Molecule ("**Quality Agreement**"). In the event of a conflict between the Quality Agreement and this Agreement, this Agreement shall govern and control, unless otherwise expressly provided in the Quality Agreement.

**4.5 Mutual Obligations.**

**(a)** Each Party shall obtain and maintain all regulatory approvals (including facility licenses) required to manufacture its respective Molecule in compliance with Applicable Law.

**(b)** Each Party shall notify the other Party as promptly as possible in the event any manufacturing delay (or other event) is likely to adversely affect its ability to fulfill its obligations to supply its Molecule under this Agreement.

**(c)** Each Party hereby agrees that it shall not disclose to the other Party information related to the identity (including chemical identity), chemical structure, or sequence (amino acid or nucleic acid) of its proprietary Molecule. [***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



[***].

**(d)** For clarity, this Agreement does not create any obligation on the part of either Party to provide its Molecule for any activities or purposes other than to conduct the Study.

## ARTICLE 5
## STUDY DATA; SAMPLE ANALYSES AND SAMPLE DATA

**5.1 Study Data.**

**(a) Database.** Corvus shall maintain all Study Data in its database in accordance with Applicable Law. [***], Corvus shall timely provide such Study Data to Genentech via electronic data transfer, in SAS format or as otherwise agreed by the Parties.

**(b) Ownership of Study Data.** Corvus shall own all right, title and interest in and to Study Data from the single agent arm of the Study and such Study Data shall be deemed Corvus Confidential Information. Corvus and Genentech shall [***]. Genentech has the right to [***].

**5.2 Samples and Sample Analyses.**

**(a) Samples.** During the Study, Corvus will direct the collection of certain biologic samples from Subjects in both the single agent arm and Combination arm ("**Samples**"), as set forth in the Protocol.

**(b) Sample Analysis**. Each Party, [***], shall perform (directly or through an Affiliate or Third Party acting on its behalf) the testing procedures and analyses of the Samples (together "**Sample Analysis**") pursuant to the sample analysis plan attached hereto as Exhibit B ("**Sample Analysis Plan**"). The Sample Analysis shall be performed by a Party within [***] of receipt of the Samples or such other timeline as determined by the JDC. Neither Party shall use the Samples for any purpose other than to perform the Sample Analyses for which it is responsible, without the prior written consent of the other Party. Corvus shall provide to Genentech the Samples necessary for Genentech to perform the Sample Analyses.

**5.3 Sample Data**.

**(a)** Corvus and Genentech will each generate data [***]. Each Party shall

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



provide to the other Party the results and/or analysis generated in the course of performing Sample Analyses for both the single agent arm and the Combination arm via electronic data transfer or other format/media determined by the JDC. Such results and/or analysis shall be provided to the other Party within [***] of completion of the assay or as otherwise agreed by the JDC.

**(b)** Corvus shall own all right, title and interest in and to [***] shall be deemed Corvus Confidential Information.

**(c)** Corvus and Genentech shall [***] (collectively "[***] **Sample Data**"). [***] Sample Data shall be deemed Joint Confidential Information.

## ARTICLE 6
## INTELLECTUAL PROPERTY

**6.1 Inventorship; Ownership and Use; Definitions.**

**(a) Inventorship.** The inventorship of any Collaboration Invention shall be determined in accordance with United States patent laws.

**(b) Sole Ownership and Use of Molecule-Specific Inventions**

**(i)** Corvus shall solely own all right, title and interest in and to any Collaboration Invention that [***] ("**Corvus Owned Invention**"). For the avoidance of doubt, any Collaboration Invention generically encompassing [***], is a Corvus Owned Invention. Corvus shall have the right to use and exploit any Corvus Owned Invention for any and all purposes. Further, Corvus shall be obligated to disclose any such Corvus Owned Invention [***].

**(ii)** Genentech shall solely own all right, title and interest in and to any Collaboration Invention that [***] ("**Genentech Owned Invention**"). For the avoidance of doubt, any Collaboration Invention generically encompassing [***], is a Genentech Owned Collaboration Invention. Genentech shall have the right to use and exploit any Genentech Owned Invention for any and all purposes. Further, Genentech shall be obligated to disclose any such Genentech Owned Invention [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**(c) Joint Ownership and Use of Jointly Owned Inventions.** Genentech and Corvus shall jointly own all right, title and interest in and to the any Collaboration Invention that relates to [***] (in both cases, a "**Jointly Owned Invention**") and any Patent that claims or covers a Jointly Owned Invention (each, a "**Joint Patent**"). Each Party shall promptly disclose to the other Party any Jointly Owned Invention. During and after the Term, Genentech and Corvus shall use Joint Confidential Information solely in connection with the activities contemplated by, the exercise of rights permitted by or in order to further the purposes of this Agreement as more specifically set forth in Section 7.1(b), unless otherwise agreed in writing by the Parties. After the Term, with respect to Joint Patents only, Genentech and Corvus shall [***].

**(d) Assignments and Cooperation.** Each Party hereby assigns to the other Party any joint or sole ownership interest in the Collaboration Inventions as necessary to effectuate ownership of the Collaboration Inventions as set forth in this Section 6.1. Each Party shall require its employees and Third Parties acting on a Party's behalf to assign to such Party any Collaboration Inventions conceived, reduced to practice or otherwise created by such employees or Third Parties, and to cooperate with such Party in connection with obtaining patent protection therefor. The Parties agree to cooperate with each other to effectuate ownership of the Collaboration Inventions as set forth in Section 6.1, including by executing and recording documents.

**6.2 Licenses.**

**(a) License to Corvus.** Genentech hereby grants to Corvus a non-exclusive, worldwide, fully paid, perpetual, sublicensable (as described in Section 6.2(c)) license, under Genentech's right, title and interest in and to the Genentech Owned Inventions, solely for the purpose of performing [***] for use in the Combination.

**(b) License to Genentech.** Corvus hereby grants to Genentech a non-exclusive, worldwide, fully paid, perpetual, sublicensable (as described in Section 6.2(c)) license, under Corvus' right, title and interest in and to the Corvus Owned Inventions, solely for the purpose of performing [***] for use in the Combination.

**(c) Sublicenses; Exercise of Licensed Rights by Third Parties.** Each Party may sublicense the rights granted to such Party under this Section 6.2, and any rights under such sublicense may be further sublicensed [***]. Further, the rights under such licenses may be exercised by an Affiliate or Third Party on behalf of such Party (or a sublicensee) without the grant of a sublicense of such rights.

**(d) No Implied Licenses.** Except as otherwise expressly provided in this Agreement, this Agreement does not grant any right or license to either Party under any of the

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

other Party's intellectual property rights (including pre-existing or independently developed intellectual property rights), and no other right or license is to be implied or inferred from any provision of this Agreement or by the conduct of the Parties.

**6.3 Patent Prosecution and Maintenance of Solely Owned Inventions.** Each Party, [***], has the right (but not the obligation) to Prosecute and Maintain any Patents for Collaboration Inventions that such Party solely owns, including the right to use Study Data and Sample Data in such Prosecution and Maintenance.

**6.4 Patent Prosecution and Maintenance of Jointly Owned Inventions.**

**(a) Prosecution and Maintenance of Joint Patents.** At Genentech's sole cost and expense, Genentech shall be responsible for the Prosecution and Maintenance of any Joint Patent through mutually agreed outside counsel ("**Outside Patent Counsel**"); provided that Genentech consults with Corvus on the Prosecution and Maintenance of any such Joint Patents as set forth in this Section 6.4. Genentech shall instruct Outside Patent Counsel to provide each of Genentech and Corvus with copies of any and all papers associated with such Prosecution and Maintenance, including all filings, submissions and correspondence to and from a patent office pertaining to such Prosecution and Maintenance so as to give Corvus reasonable opportunities to provide comments in connection with such Prosecution and Maintenance. Genentech and Corvus shall consult with each other after receiving any substantive action or after any material development in such Prosecution and Maintenance (including issues regarding the scope of, the allowance of or the rejection of any claims and any proposed or actual response to any correspondence from a patent office in connection with any such patent applications or patents). Genentech shall consider and incorporate Corvus' reasonable comments with respect to such Prosecution and Maintenance.

**(b) Selection of Outside Patent Counsel.** Outside Patent Counsel shall be selected by Genentech, following consultation with Corvus, within sixty (60) days of the Effective Date or such other date as mutually agreed by the Parties. During the Term, Genentech may, in its sole discretion, change the selected outside counsel to new patent counsel, *provided* that Genentech consults with Corvus prior to make such change. Following any such change of patent counsel in accordance with this Section 6.4, the new patent counsel shall be deemed "Outside Patent Counsel" for purposes of this Section 6.4.

**(c) Step-in Rights**. In the event that Genentech declines to Prosecute and Maintain a Patent for a Jointly Owned Invention or wishes to discontinue the Prosecution and Maintenance of a Joint Patent in any countries or in particular countries, Corvus, at its sole option, may continue such Prosecution and Maintenance, at Corvus' sole cost and expense.

**(d) Limitations on Filing of Joint Patents.** Each Party covenants and agrees that it will not, directly or indirectly, without the prior written consent of the other Party, file any Patent covering a Jointly Owned Invention. In the event [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**(e) Joint Research Agreement**. This Agreement shall be deemed a joint research agreement under 35 U.S.C. §102(c) and any foreign counterparts entered into for the purpose of developing the combination of Corvus Molecule and Genentech Molecule.

**(f) European Patent Court**. At any time prior to the end of the "transitional period" as such term is used in Article 83 of the Agreement on a Unified Patent Court between the participating Member States of the European Union, for a given relevant EU Patent, Genentech may request in writing that Corvus, with respect to Patents claiming a Jointly Owned Invention, either (i) opt out from the exclusive competence of the Unified Patent Court or (ii) if applicable, withdraw a previously-registered opt-out, and Corvus shall notify the Registry [***] and take such other action as may be necessary to effect the opt-out or opt-out withdrawal ("Register"). Corvus shall Register [***] as a result of taking the requested action.

**6.5 Third Party Infringement, Third Party Challenges and Third Party Allegations of Infringement.**

**(a) Notice**. Each Party shall promptly provide the other Party with written notice reasonably detailing any known or alleged infringement by a Third Party of any Joint Patent, including Third Party submissions and post-grant reviews, unenforceability, or non-infringement of any such Joint Patent (collectively "**Third-Party Infringement**"). Within fifteen (15) days after receipt of such notice, the Parties shall consult with each other to determine the response to any Third Party Infringement.

**(b) Enforcement or Defense**.

**(i)** Subject to consultation with Corvus as set forth in Section 6.4(a), Genentech will have the initial right to determine and control a course of action designed to curtail or address such Third Party Infringement, whether legal or commercial, in connection with such Third Party Infringement, against such Third Party which is infringing the Joint Patent or challenging the validity, patentability, or enforceability of the Joint Patent, at its own expense, as it reasonably determines appropriate.

**(ii)** Genentech shall keep Corvus reasonably informed as to any legal or other courses of action it pursues pursuant to this subsection (i). Corvus shall provide reasonable assistance to Genentech in connection therewith, including by executing reasonably appropriate documents, cooperating in discovery and joining as a party to the action.

**(iii)** In connection with any such proceeding, Genentech shall not enter into any settlement admitting the invalidity of, or otherwise impairing the Joint Patent without the prior written consent of Corvus, such consent not to be unreasonably withheld. Any recoveries received from such an action arising from Third Party Infringement shall be applied as follows:

(A) First, to reimburse each Party for all Out-of-Pocket Costs in connection with such proceeding (on a pro rata basis, based on each Party's respective litigation costs, to the extent the recovery was less than all such litigation

costs); and

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



(B) Second, any remainder shall be paid [***] to Genentech and [***] to Corvus.

**(iv)** If, within sixty (60) days after Genentech's receipt of a notice of a Third Party Infringement, Genentech does not take or decides not to take any action as described in subsection (i) against a Third Party (who is infringing such Joint Patent or is challenging the validity, patentability, or enforceability of any Joint Patent), Corvus may, subject to the following sentence, in its sole discretion, bring and control any legal action in connection therewith at its sole expense. If Corvus intends to bring any such legal action, it shall first notify Genentech in writing of such intent and the reasons therefor and provide Genentech with an opportunity to indicate to Corvus its reasons for not bringing such legal action. If Genentech provides either [***]. Corvus shall keep Genentech reasonably informed as to any legal or commercial courses of action it pursues pursuant to this subsection (ii). At the request and expense of Corvus, Genentech shall provide reasonable assistance to Corvus in connection therewith, including by executing reasonably appropriate documents, and cooperating in discovery; provided, however, that nothing herein shall require Genentech to join as a party or otherwise participate in such legal action unless required by law or regulation, if in Genentech's reasonable opinion such participation will [***]. Genentech may choose, at its own expense, to be represented in any such action by counsel of its own choice; provided, however, that if Genentech is required as a necessary party to such action, [***]. In connection with any such proceeding, Corvus shall not enter into any settlement admitting the invalidity of or otherwise impairing any Joint Patent without the prior written consent of Genentech, which consent shall not be unreasonably withheld. [***].

## ARTICLE 7
## CONFIDENTIALITY

**7.1 Disclosure and Use of Confidential Information. Corvus Confidential Information and Genentech Confidential Information**. Except to the extent expressly authorized by this Agreement or otherwise agreed to in writing, each Party (the "**Receiving Party**") in possession of the Confidential Information of the other Party (the "**Disclosing Party**") shall: (i) hold in confidence and not disclose the Disclosing Party's Confidential Information to any Third Party, (ii) take all reasonable precautions to protect the Confidential Information of the other Party (including all precautions a Party employs with respect to its own confidential information of a similar nature and taking reasonable precautions to assure that no unauthorized use or disclosure is made by others to whom access to the Confidential Information of the Party is granted) and (iii) only use the Disclosing Party's Confidential Information in connection with activities contemplated by, the exercise of rights permitted by or in order to further the purposes of this Agreement. The foregoing obligations of the Receiving Party shall

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



not apply to the Disclosing Party's Confidential Information to the extent that the Receiving Party establishes by written evidence that such Confidential Information:

**(i)** was already known to the Receiving Party, other than under an obligation of confidentiality, at the time of its disclosure by the Disclosing Party;

**(ii)** was generally available to the public or otherwise part of the public domain at the time of its disclosure by the Disclosing Party;

**(iii)** became generally available to the public or otherwise part of the public domain, other than through any act or omission of the Receiving Party in breach of this Agreement, after its disclosure by the Disclosing Party;

**(iv)** was disclosed to the Receiving Party, other than under an obligation of confidentiality, by a Third Party who had no obligation to the Disclosing Party not to disclose such information to others;

**(v)** was subsequently developed by or on behalf of the Receiving Party without use of the Disclosing Party's Confidential Information or Joint Confidential Information, as the case may be; or

**(vi)** is no longer subject to the provisions of Section 7.1 by the prior written consent of the Disclosing Party.

**(b) Joint Confidential Information.** Except to the extent expressly authorized by this Agreement (including Section 6.1(c)) or otherwise agreed to in writing, each Party shall, with regard to Joint Confidential Information, (i) hold in confidence and not disclose Joint Confidential Information to any Third Party, (ii) take all reasonable precautions to protect Joint Confidential Information (including all precautions a Party employs with respect to its own confidential information of a similar nature and taking reasonable precautions to assure that no unauthorized use or disclosure is made by others to whom access to the Confidential Information of the Party is granted) and (iii) subject to Section 6.1(c), only use Joint Confidential Information in connection with activities contemplated by, the exercise of rights permitted by or in order to further the purposes of this Agreement.

**7.2 Authorized Disclosures.**

**(a) Legal Compliance.** A Party may disclose the other Party's Confidential Information or Joint Confidential Information, as the case may be, if such disclosure is required by law, rule or regulation (including to comply with the order of a court or governmental regulations , and any disclosure requirements of the Securities and Exchange Commission or the securities exchange or other stock market on which such Party's securities are traded), but only to the extent such disclosure is reasonably necessary for such compliance; provided, however, except for disclosures otherwise permitted

under Section Article 3, or as otherwise required or necessitated by law, such Party shall where practicable provide prompt notice of such disclosure requirement to the other Party and provide reasonable assistance to enable such other Party to seek a protective order or otherwise prevent such disclosure (in each case, to the extent it is legally permitted to do so).

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**(b) Regulatory Authorities.** A Party may disclose the other Party's Confidential Information or Joint Confidential Information, as the case may be, to Regulatory Authorities to the extent such disclosure is required to comply with applicable governmental regulations or is in connection with such Party's filings, submissions and communications with Regulatory Authorities regarding such Party's Molecule.

**(c) Subcontractors.** A Party may disclose the other Party's Confidential Information or Joint Confidential Information, as the case may be, to subcontractors to the extent such disclosure is required to conduct the Study or perform the Sample Analysis; provided that any such subcontractors are contractually bound in writing by obligations reasonably similar to those set forth in Section 7.1.

**(d) Affiliates; Professional Advisors; Other Third Parties.** A Party may disclose the terms of this Agreement (or a summary thereof) or the other Party's Confidential Information or Joint Confidential Information, as the case may be, on a confidential basis and to the extent reasonably necessary, to its Affiliates, board members, accountants, attorneys, auditors or other professional advisors; provided that any such board members, accountants, attorneys, auditors or other professional advisors are contractually bound in writing by obligations reasonably similar to those set forth in Section 7.1. [***]. Notwithstanding the foregoing, [***], to a potential or actual licensee or corporate partner, provided that (i) such disclosure is [***]; (ii) such [***]; (iii) any such disclosure is not [***]; and (iv) Corvus provides written notice to Genentech prior to [***].

**7.3 Continuing Obligation.** Article 7 shall survive the expiration or termination of this Agreement for a period of [***].

**7.4 Termination of Prior Agreements.** As of the Effective Date, this Agreement supersedes the Non-Disclosure Agreement between Corvus and Hoffman-La Roche Inc. (covering the Roche Group, including Genentech) effective as of [***]. All "Information" (as defined in such non-disclosure agreement) exchanged between the Parties thereunder shall be deemed Confidential Information of the Disclosing Party hereunder and shall be subject to the provisions of Article 7.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



## ARTICLE 8
## PUBLIC DISCLOSURES; USE OF NAMES

**8.1 Clinical Trials Registries.** Corvus agrees that it is the "responsible party" as that term is used in Title VIII Section 801 of the Food Drug Administration Amendments Act 2007 (known as FDAAA 801) and, as such, agrees to timely post the required Study information on ClinicalTrials.gov, and on other clinical trials registries as required by Applicable Law.

**8.2 Publications and Presentations.**

**(a)** Corvus may publish or present the final results of the Study (in accordance with this Section 8.2); provided that Corvus gives Genentech an opportunity to review and provide comments in accordance with subsection (b).

**(b)** In the event that either Party (for purposes of this Section, the "**Publishing Party**") wishes to publish or present any Study Data or Sample Data, the Publishing Party shall submit to the other Party (for purposes of this Section, the "**Reviewing Party**") all materials related to the proposed publication or presentation (including posters, abstracts, manuscripts and written descriptions of oral presentations) at least [***] days (or [***], in the case of abstracts) prior to the date of submission for publication or the date of presentation, whichever is earlier, of any of such submitted materials. The Reviewing Party shall review such submitted materials and respond to the Publishing Party as soon as reasonably possible, but in any case within [***] (or [***], in the case of abstracts) of receipt thereof. The Publishing Party will be permitted to publish or present such Study Data or Sample Data, but shall give reasonable consideration to any request by the Reviewing Party; provided, however, at the request of the Reviewing Party, the Publishing Party shall (i) delete from such proposed publication or presentation Confidential Information of the Reviewing Party (including Sample Data), provided that the Publishing Party shall have no obligation to delete any Study Data; and/or (ii) if such proposed publication or presentation contains patentable subject matter owned solely or jointly by the Reviewing Party, delay such proposed publication or presentation, for [***], to permit the Reviewing Party to prepare and file a patent application. The Publishing Party shall comply with all applicable requirements regarding disclosure of industry support (financial or otherwise) in connection with any publications and presentations. For clarity, the provisions of this Section 8.2 only apply to publications or presentations of Study Data or Sample Data and do not apply to any other publications or presentations by a Party, including with respect to results from such Party's development activities outside of the Study.

**(c)** Authorship of publications or presentations of final results of the Study and/or any Study Data or Sample Data shall be determined in accordance with appropriate scientific and academic standards and customs.

**8.3 Press Releases and Other Public Disclosures.**

**(a) Generally.** For purposes of Section 8.3, a "**Disclosure**" means a press release or other public disclosure concerning this Agreement or the subject matter hereof, including the terms and conditions of this Agreement and the Protocol. The provisions of Section 8.3 are in addition to the provisions of Article 7.

**(b) Review and Approval.** Each Party agrees that the other Party shall have no less than [***] (before the date of a proposed Disclosure) to review and provide comments regarding any proposed Disclosure (subject to Section 8.3(d)), unless a shorter review time is agreed to by both Parties. Except for Disclosures covered by other provisions of Section 8.3, if a Party desires to make a Disclosure, it shall obtain the other Party's prior written approval for the proposed Disclosure. Disclosures include public communications that contain previously disclosed information; provided, however, neither Party shall be required to obtain the other Party's approval to repeat any information regarding the terms of this Agreement that has already been publicly disclosed by such Party, or by the other Party, in accordance with Section 8.3, provided such information remains accurate at such time.

**(c) Disclosure Required by Law.** In the event that one Party reasonably concludes, based on the opinion of legal counsel, that a Disclosure is required by law, rule or regulation (including the disclosure requirements of the Securities and Exchange Commission or the securities exchange or other stock market on which such Party's securities are traded (for purposes of Section 8.3, collectively, an "**Exchange**")), such Party shall provide the other Party with such advance notice of this Disclosure as it reasonably can, but shall not be required to obtain approval therefor. Each Party agrees that it shall obtain its own legal advice with regard to its compliance with securities laws, rules and regulations, and will not rely on any statements made by the other Party relating to such securities laws, rules and regulations.

**(d) Filing of Agreement.** The Parties acknowledge that either or both Parties may be obligated under the disclosure requirements of an Exchange to file a copy of this Agreement with such Exchange. Each Party shall be entitled to make such a required filing, provided that it uses reasonable efforts to request confidential treatment of the commercial terms and sensitive technical terms of this Agreement, to the extent such confidential treatment is reasonably available to such Party. The filing Party shall provide to the other Party a copy of this Agreement marked to show the provisions for which the filing Party intends to seek confidential treatment no less than [***] before the date of the proposed filing, for such other Party's review and comment, [***].

**8.4 Use of Names.** Each Party agrees to identify the other Party and acknowledge its support in any press release and any publication or presentation of the Study Data or Sample Data (which shall be in accordance with other provisions of this Agreement, including Section 8.2). Except as otherwise expressly provided in this Agreement, no right, express or implied, is granted by the Agreement to use in any manner the name of "Corvus," "Genentech", "Roche" or any other trade name or trademark of the other Party (or its Affiliates) in any public statement or for commercial, marketing or other promotional purpose, without the other Party's prior written consent.

## ARTICLE 9
## HUMAN SUBJECTS

**9.1 Informed Consent.** Corvus shall obtain the informed written consent of all Subjects participating in the Study, in accordance with Applicable Law. [***]





[***]. Corvus shall provide copies of such informed written consents upon Genentech's request. Corvus further represents and warrants that the Samples may be used as contemplated in this Agreement [***].

**9.2 IRB Approval.** Corvus shall obtain IRB review and approval of the Protocol and the informed consent form to be used in the Study in accordance with Applicable Law.

**9.3 Patient Privacy and Data Protection.** Each Party shall comply with Applicable Law relating to patient privacy and data protection. Such compliance includes [***] for the purposes of [***]. Each Party agrees that [***].

## ARTICLE 10
## SUBCONTRACTING; RECORDS

**10.1 Subcontracting.** Each Party shall have the right to delegate any portion of its obligations under this Agreement to a subcontractor, provided that such Party shall remain solely and fully liable for the performance of such subcontractors. Each Party shall ensure that each of its subcontractors performs its obligations pursuant to the terms of this Agreement, including the Exhibits. Each Party shall use reasonable efforts to obtain and maintain copies of documents relating to the obligations performed by such subcontractors that are held by or under the control of such subcontractors and that are required to be provided to the other Party under this Agreement.

**10.2 Records.**

**(a)** In addition to providing Study Data to Genentech under Section 5.1(a), [***]

[***].

**(b)** Corvus (or its designee) shall maintain such records for at least the period of time required by Applicable Law, but for no less than [***] following the completion or termination of the Study.

## ARTICLE 11
## COMPLIANCE WITH LAWS

**11.1 Compliance with Laws and Policies.** Each Party shall perform activities under this Agreement in compliance with Applicable Law and in accordance with good business ethics and the ethics and other corporate policies applicable to such Party. Specifically, each Party covenants that it, its directors, employees, officers, and anyone acting on its behalf, shall not, in connection with the performance of this Agreement, directly or indirectly, make, promise, authorize, ratify or offer to make, or take any act in furtherance of any payment or transfer of anything of value for the purpose of influencing, inducing or rewarding any act, omission or decision to secure an improper advantage; or improperly assisting it in obtaining or retaining business for it or the other Party, or in any way with the purpose or effect of public or commercial bribery. Other provisions of the Agreement require compliance with specified areas of Applicable Law and such other provisions do not limit the scope of compliance required of the Parties under this Section.

**11.2 Debarment.** Corvus shall require each Project Participant to represent and warrant that neither the Project Participant nor anyone employed by such Project Participant has been debarred under 21 USC § 335a, disqualified under 21 CFR § 312.70 or § 812.119, sanctioned by a Federal Health Care Program (as defined in 42 USC § 1320a-7b(f)), including the federal Medicare or a state Medicaid program, or debarred, suspended, excluded or otherwise declared ineligible from any other similar regional, national, federal or state agency or program. If a Project Participant receives notice of debarment, suspension, sanction, exclusion, ineligibility or disqualification under the foregoing-referenced statutes, Corvus shall promptly notify Genentech, and the Parties shall agree upon appropriate action to address the matter.

## ARTICLE 12
## TERM; TERMINATION

**12.1 Term.** Unless sooner terminated as provided in Article 12, this Agreement shall expire on the one year anniversary of the date that Corvus provides the Final Study Report to Genentech or termination of the Study (in either case, "**Term**").

**12.2 Termination for Material Breach.** Either Party may terminate this Agreement, by notice to the other Party, for any material breach of this Agreement by the other Party, if such breach is not cured within [***] after the allegedly breaching Party receives notice of such breach from the non-breaching Party; provided, however, if such breach is not capable of being cured within such [***] period, the cure period shall be extended for such amount



of time that the Parties agree to in writing is reasonably necessary to cure such breach, so long as the allegedly breaching Party is using diligent efforts to do so.

**12.3 Termination for Other Reasons.** Either Party may terminate this Agreement immediately, by notice to the other Party, if: (a) based on a review of Study Data or other Study-related information, such Party determines that the Study may unreasonably affect patient safety; (b) any Regulatory Authority or IRB withdraws the authorization and/or approval to conduct the Study; (c) any Regulatory Authority takes any action, or raises any objection, that prevents such Party from supplying its Molecule for purposes of the Study; (d) the other Party breaches the representation and warranty under Section 13.1(c); or (e) such Party determines, in its sole discretion, to discontinue all development of its Molecule, for medical, scientific, business or legal reasons, [***].

**12.4 Effects of Termination or Expiration.**

**(a) Study Wind-Down.** Following termination of this Agreement under Section 12.2 or Section 12.3, the Parties shall cooperate to ensure the orderly wind-down of Study activities, taking into consideration the safety and welfare of Subjects.

**(b) Accrued Rights and Obligations.** Except as otherwise expressly provided in this Agreement, termination of this Agreement shall not affect the rights and obligations of the Parties that accrued prior to the effective date of such termination. Any right that a Party has to terminate this Agreement, and any rights that such Party has under Article 12, shall be in addition to and not in lieu of all other rights or remedies that such Party may have at law or in equity or otherwise.

**(c) Survival.** Except as otherwise expressly provided in this Agreement, the following shall survive this Agreement's expiration or termination for any reason: Article 1 (Definitions), Section 2.6 (Regulatory Matters), Section 1.1(a) (Documentation), Section 2.11 (Additional Studies), Section 2.12 (Right of First Negotiation), Section 5.1(b) (Ownership of Study Data), Sections 5.3(b) and (c) (Sample Data), Article 6 (Intellectual Property and Licenses), Article 7 (Confidentiality), Article 8 (Public Disclosures; Use of Names), Section 9.3 (Patient Privacy and Data Protection), Section 10.2(a) (Records), Section 12.4 (Effects of Termination), Section 13.2 (Disclaimers), Section 14.1 (Indemnification), Section 14.2 (Limitation on Liability), Article 15 (Dispute Resolution) and Article 16 (Miscellaneous). To the extent applicable to a Section or Article that survives the expiration or termination of this Agreement, any other Sections and Articles that are (directly or indirectly) referenced in, or refer to, such surviving Section or Article shall survive.

## ARTICLE 13
## REPRESENTATIONS AND WARRANTIES

**13.1 Mutual Representations and Warranties.** Each Party represents and warrants to the other Party the following:

**(a)** Such Party has the full right, power and authority, and has obtained all approvals, permits or consents necessary, to enter into this Agreement, to perform all of its obligations hereunder.

**(b)** Such Party has not entered into prior to the Effective Date, and shall not enter into during the Term, any agreement that conflicts with a Party's obligations hereunder.

**(c)** Neither Party nor anyone employed by it has been debarred under 21 USC § 335a, disqualified under 21 USC § 312.70 or § 812.119, sanctioned by a Federal Health Care Program (as defined in 42 USC § 1320a-7b(f)), including the federal Medicare or a state Medicaid program, or debarred, suspended, excluded or otherwise declared ineligible from any other similar regional, national, federal or state agency or program. If such Party receives notice of debarment, suspension, sanction, exclusion, ineligibility or disqualification under the foregoing-referenced statutes, such Party shall promptly notify the other Party, and the Parties shall agree upon appropriate action to address the matter.

**13.2 Disclaimers.** NEITHER PARTY REPRESENTS OR WARRANTS THAT THE STUDY WILL BE SUCCESSFUL OR LEAD TO ANY PARTICULAR RESULT. EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND WITH RESPECT TO ITS RESPECTIVE MOLECULE, MATERIALS OR INFORMATION SUPPLIED BY IT TO THE OTHER PARTY HEREUNDER, AND EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.

## ARTICLE 14
## INDEMNIFICATION; LIMITATION ON LIABILITY; INSURANCE

**14.1 Indemnification.**

**(a) Definitions.** The following definitions are for purposes of Section 14.1:

**(i)** "**Claims**" means claims, suits, actions, demands or other proceedings by any Third Party arising out of this Agreement or the Study, including product liability claims.

**(ii)** "**Indemnitee**" means, as applicable, a Corvus Indemnitee (as defined in Section 14.1(b)(i)) or a Genentech Indemnitee (as defined in Section 14.1(c)(i)).

**(iii)** "**Losses**" means any and all liabilities, damages, settlements, penalties, fines, costs or expenses (including, reasonable attorneys' fees and other expenses of litigation).

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**(b) Indemnification by Genentech.**

**(i) Indemnification Scope.** Genentech hereby agrees to indemnify, defend and hold harmless each of Corvus, its Affiliates and its and their officers, directors, employees, subcontractors and agents (for purposes of Section 14.1, each, a "**Corvus Indemnitee**") from and against Losses incurred in connection with Claims, to the extent such Losses (A) arise out of or in connection with (1) the negligence or willful misconduct of any Genentech Indemnitees; (2) Genentech's breach of any of its representations, warranties, covenants or obligations under this Agreement; or (3) Genentech's breach of any Applicable Law pertaining to activities it performs under this Agreement or (B) are directly caused by the Genentech Molecule.

**(ii) Procedures.** Corvus shall (A) notify Genentech of any Claim for which it seeks to exercise its rights under Section 14.1(b)(i) as soon as reasonably possible after it receives notice of such Claim; (B) permit Genentech to assume the sole control of the defense thereof, including the right to settle or conclude such defense; (C) cooperate as reasonably requested (at the expense of Genentech) in the defense of such Claim; and (D) not settle such Claim without the express, prior written consent of Genentech. Genentech's obligations under Section 14.1(b)(i) shall not apply (A) to amounts paid in settlement of any Claims if such settlement is effected without Genentech's consent or (B) to the extent any Losses arise out of or in connection with (1) the negligence or willful misconduct of any Corvus Indemnitees; (2) Corvus' breach of any of its representations, warranties, covenants or obligations under this Agreement; or (3) Corvus' breach of any Applicable Law pertaining to activities it performs under this Agreement.

**(c) Indemnification by Corvus.**

**(i) Indemnification Scope.** Corvus hereby agrees to indemnify, defend (if requested by Genentech) and hold harmless each of Genentech, its Affiliates and its and their officers, directors, employees, subcontractors and agents (for purposes of Section 14.1, each, a "**Genentech Indemnitee**") from and against Losses incurred in connection with Claims, to the extent such Losses (A) arise out of or in connection with (1) the negligence or willful misconduct of any Corvus Indemnitees; (2) Corvus' breach of any of its representations, warranties, covenants or obligations under this Agreement; or (3) Corvus' breach of any Applicable Law pertaining to activities it performs under this Agreement or (B) are directly caused by the Corvus Molecule.

**(ii) Procedures.** Genentech shall notify Corvus of any Claim for which it seeks to exercise its rights under Section 14.1(c)(i) as soon as reasonably possible after it receives notice of such Claim. If requested by Genentech, Corvus shall assume control of the defense thereof, with counsel mutually satisfactory to the Parties, including the right to settle or conclude such defense. In the event that Genentech requests that Corvus assume such control, Genentech shall (A) cooperate as reasonably requested (at the expense of Corvus) in the defense of such Claim and (B) not settle such Claim without the express, prior written consent of Corvus. Corvus' obligations under Section 14.1(c)(i) shall not apply (A) to amounts paid in settlement of any

Claims if such settlement is effected without Corvus' consent or (B) to the extent any Losses arise out of or in connection with (1) the negligence or willful misconduct of any Genentech Indemnitees; (2) Genentech's breach of any of its representations, warranties, covenants or

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



obligations under this Agreement; or (3) Genentech's breach of any Applicable Law pertaining to activities it performs under this Agreement.

**(d) Limitations.** The failure of an Indemnitee to deliver notice to the other Party (for purposes of this Section 14.1(d), the "**Indemnitor**") within a reasonable time after the commencement of any Claim for which such Indemnitee seeks to exercise its rights under Section 14.1, to the extent prejudicial to the Indemnitor's ability to defend such Claim, shall relieve the Indemnitor of its obligation to the Indemnitees under Section 14.1. The Parties agree that only Corvus or Genentech may seek to exercise the rights under Section 14.1 (on its own behalf or on behalf of its Indemnitees), and other Indemnitees may not directly seek to exercise such rights.

**(e) Study Subjects. [***]**

**14.2 Limitation on Liability.** IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, PUNITIVE OR EXEMPLARY DAMAGES, HOWEVER CAUSED; PROVIDED HOWEVER, NOTHING IN THIS SECTION 14.2 IS INTENDED TO LIMIT THE RIGHTS OR OBLIGATIONS OF EITHER PARTY UNDER SECTION 14.1.

**14.3 Insurance.**

**(a) General.** Each Party shall maintain insurance coverage as set forth in Section 14.3; provided, however, Genentech has the right, in its sole discretion, to self-insure, in part or in whole, for any such coverage. Insurance coverage shall be primary insurance with respect to each Party's own participation under this Agreement and shall be maintained with an insurance company or companies having an A.M. Best's rating (or its equivalent) of A-VII or better. On request, each Party shall provide to the other Party certificates of insurance evidencing the insurance coverage required under Section 14.3. Each Party shall provide to the other Party at least [***] notice of any cancellation, nonrenewal or material change in any of the required insurance coverages. The limits of any required insurance coverage shall not limit the Parties' liability under the indemnification provisions of this Agreement.

**(b) Genentech Coverage.** Genentech shall maintain product liability insurance relating to the Genentech Molecule provided by Genentech under this Agreement, for limits no less than [***] per occurrence and [***] in the aggregate.

**(c) Corvus Coverage.** Corvus shall maintain in full force and effect through the term of this Agreement, sufficient insurance, including (i) commercial general liability (including contractual liability) insurance covering bodily injury and property damage arising out of Corvus' obligations under this Agreement, for limits no less than [***] per occurrence and [***] in the aggregate and (ii) product liability insurance relating to the Corvus Molecule provided by Corvus under this Agreement, for limits of no less than [***] per occurrence and [***] in the aggregate. For claims-made type coverage, product liability

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



insurance shall be maintained for a minimum of [***] after the last Subject receives treatment in connection with the Study (which may be achieved, without limitation, by way of an extended reporting period endorsement), including any treatment received after Study Completion, but not less than the statute of limitations in the state or location where the Study is being conducted. Corvus shall ensure prior to the enrollment of any Subjects that the insurance policies required by this Section cover injuries that may arise in connection with the Study.

## ARTICLE 15
## DISPUTE RESOLUTION

**15.1 Internal Resolution.** Corvus and Genentech recognize that a dispute, controversy or claim of any nature whatsoever arising out of or relating to this Agreement (each, a "**Dispute**") may from time to time arise during the Term. In the event of the occurrence of such a Dispute, the Parties shall first refer such Dispute to the JDC pursuant to Section 3.1(c). If the JDC cannot resolve such Dispute, the Party bringing the Dispute shall provide written notice, including a description of the Dispute and the steps taken to resolve such Dispute, to the other Party. Upon receipt of such notice, the Dispute shall be referred to **[***]** and [***] for resolution, prior to proceeding under the other provisions of Article 15. In the event that such Dispute is not resolved within [***] of such other Party's receipt of such notice, **[***]**. For all other Disputes not subject to final decision making authority of a Party, either Party may commence an arbitration to resolve such Dispute in accordance with Section 15.2.

**15.2 Arbitration.** Except as otherwise expressly provided in this Agreement, the Parties agree that any Dispute not resolved internally by the Parties pursuant to Section 15.1 shall be resolved through binding arbitration conducted by the American Arbitration Association in accordance with the then prevailing Commercial Arbitration Rules of the American Arbitration Association (for purposes of Article 15, the "Rules"), except as modified in this Agreement, applying the substantive law specified in Section 16.2.

**(a) Arbitrators; Location.** Each Party shall select one (1) arbitrator, and the two (2) arbitrators so selected shall choose a third arbitrator. All three (3) arbitrators shall serve as neutrals and have at least ten (10) years of both (i) dispute resolution experience (which may include judicial experience) and (ii) legal or business experience in the biotech or pharmaceutical industry. If a Party fails to nominate its arbitrator, or if the Parties' arbitrators cannot agree on

the third arbitrator, the necessary appointments shall be made in accordance with the Rules. Once appointed by a Party, such Party shall have no *ex parte* communication with its appointed arbitrator. The arbitration proceedings shall be conducted in **[***]**.

**(b) Procedures; Awards.** Each Party agrees to use reasonable efforts to make all of its then current employees available, if reasonably needed, and agrees that the arbitrators may deem any employee or person as necessary to the arbitration. The arbitrators shall be instructed and required to render a written, binding, non-appealable resolution and award on each issue that clearly states the basis upon which such resolution and award is made. The written resolution and award shall be delivered to the Parties as expeditiously as possible, but in no event more than ninety (90) days after conclusion of the hearing, unless otherwise agreed by the Parties. Judgment upon such award may be entered in any competent court or application may be made to any competent court for judicial acceptance of such an award and order for enforcement. Each Party agrees that, notwithstanding any provision of applicable law or of this Agreement, it will not request, and the arbitrators shall have no authority to award punitive or exemplary damages against any Party.

**(c) Interim Equitable Relief.** Notwithstanding anything to the contrary in Article 15, in the event that a Party reasonably requires relief on a more expedited basis than would be possible pursuant to the procedure set forth in Article 15, such Party may seek a temporary injunction or other interim equitable relief in a court of competent jurisdiction pending the opportunity of the arbitrators to review the decision under Article 15. Such court shall have no jurisdiction or ability to resolve disputes beyond the specific issue of temporary injunction or other interim equitable relief.

**(d) Protective Orders; Arbitrability.** At the request of either Party, the arbitrators shall enter an appropriate protective order to maintain the confidentiality of information produced or exchanged in the course of the arbitration proceedings. The arbitrators shall have the power to decide all questions of arbitrability.

**15.3 Subject Matter Exclusions.** Notwithstanding the provisions of Section 15.2, any Dispute not resolved internally by the Parties pursuant to Section 15.1 that involves the scope, enforceability, validity or infringement of any Corvus Patent, Genentech Patent or Joint Patent (a) that is issued in the United States shall be subject to actions before the United States Patent and Trademark Office and/or submitted exclusively to the federal court located in the jurisdiction of the district where any of the defendants resides; and (b) that is issued in any other country shall be brought before an appropriate regulatory or administrative body or court in that country, and the Parties hereby consent to the jurisdiction and venue of such courts and bodies.

**15.4 Continued Performance**. Provided that this Agreement has not terminated, the Parties agree to continue performing under this Agreement in accordance with its provisions, pending the final resolution of any Dispute.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



## ARTICLE 16
## MISCELLANEOUS

**16.1 Notices.** Except as otherwise expressly provided in this Agreement, any notice required under this Agreement shall be in writing, shall specifically refer to this Agreement and shall be sent in accordance with the provisions of this Section 16.1. Notices shall be sent via one of the following means and will be effective (a) on the date of delivery, if delivered in person; (b) on the date of receipt, if sent by a facsimile (with delivery confirmed); or (c) on the date of receipt, if sent by private express courier or by first class certified mail, return receipt requested (or its equivalent). Any notice sent via facsimile shall be followed by a copy of such notice by private express courier or by first class mail. Notices shall be sent to the other Party at the addresses set forth below. Either Party may change its addresses for purposes of this Section 16.1 by sending written notice to the other Party.

**If to Corvus:**

Corvus Pharmaceuticals, Inc.
863 Mitten Road
Suite 102
Burlingame, CA 94010
Attn: Richard Miller, M.D.
Telephone: (650) 900-4520
Facsimile: N/A

**with a required copy to:**

Latham & Watkins
140 Scott Drive
Menlo Park, CA 94025
Attn: Alan C. Mendelson, Esq.
Telephone: (650) 328-4600
Facsimile: (650) 463-3000

**If to Genentech:**

Genentech, Inc.
1 DNA Way
South San Francisco, CA 94080
Attn: Corporate Secretary

Telephone: (650) 225-1000
Facsimile: (650) 467-9146

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**with a required copy to:**

F Hoffmann-La Roche Ltd
Grenzacherstrasse 124
CH-4070 Basel
Switzerland
Attn: Head of Oncology, Business Development, Roche Partnering
Telephone: +41 61 688 06 29

**16.2 Governing Law.** This Agreement shall be governed by and construed under the laws of the State of Delaware, without regard to conflict of laws principles. The Parties hereby exclude from this Agreement the application of the United Nations Convention on Contracts for the International Sale of Goods.

**16.3 Assignment.**

**(a) General.** Except as otherwise expressly provided in this Agreement, neither Party may assign any of its rights or delegate any of its obligations under this Agreement without the prior written consent of the other Party, such consent not to be unreasonably withheld. Subject to the other provisions of Section 16.3, either Party may assign this Agreement, in part or in its entirety, to (a) an Affiliate; (b) an acquirer of all its capital stock (by reverse triangular merger or otherwise) or all or substantially all its assets; or **[***]** (for purposes of Section 16.3, any of the foregoing, a "**Change of Control**"), provided that in the event of any Change of Control, the Third Party to which this Agreement is assigned expressly agrees in writing to assume and be bound by the obligations of the assigning Party under this Agreement. A copy of such writing shall be provided to the non-assigning Party within thirty (30) days of the assignment. Subject to the foregoing and other applicable provisions of Section 16.3, this Agreement will inure to the benefit of and bind the Parties' successors and assigns. Any assignment or delegation in contravention of any such applicable provisions shall be null and void. Notwithstanding any other provision of Section 16.3, this Agreement may only be assigned together with the Ancillary Agreements.

**(b) Assignment by Corvus; Acquisitions.** In the case of a Change of Control of Corvus, Corvus shall notify Genentech promptly upon completing such Change of Control if the acquiring party (i) [***] or (ii) [***] (directly or indirectly) or the like. Corvus, including its acquiring party, shall (i) [***] and (ii) provide [***]. The foregoing obligations shall also apply if Corvus or a Corvus Affiliate [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**16.4 Force Majeure.** Neither Party shall be deemed to have breached this Agreement for failure to perform its obligations under this Agreement to the extent such failure results from causes beyond the reasonable control of the affected Party, such causes including acts of God, earthquakes, fires, floods, embargoes, wars, acts of terrorism, insurrections, riots, civil commotions, omissions or delays in action by any governmental authority, acts of a government or agency thereof and judicial orders or decrees. If a force majeure event occurs, the Party unable to perform shall promptly notify the other Party of the occurrence of such event, and the Parties shall meet (in person or telephonically) promptly thereafter to discuss the circumstances relating thereto. The Party unable to perform shall (a) provide reasonable status updates to the other Party from time to time; (b) use commercially reasonable efforts to mitigate any adverse consequences arising out of its failure to perform; and (c) resume performance as promptly as possible.

**16.5 Relationship of the Parties.** The Parties to this Agreement are independent contractors, and nothing contained in this Agreement shall be deemed or construed to create a partnership, joint venture, employment, franchise, agency or fiduciary relationship between the Parties.

**16.6 Amendment; Waiver.** Except as otherwise expressly provided in this Agreement, no amendment to this Agreement shall be effective unless made in writing and executed by an authorized representative of each Party. A Party's failure to exercise, or delay in exercising, any right, power, privilege or remedy under this Agreement shall not (a) operate as a waiver thereof or (b) operate as a waiver of any other right, power, privilege or remedy. A waiver will be effective only upon the written consent of the Party granting such waiver.

**16.7 Construction; Captions.** Each Party acknowledges that it participated in the negotiation and preparation of this Agreement and that it had the opportunity to consult with an attorney of its choice in connection therewith. Ambiguities, if any, in this Agreement shall not be construed against either Party, irrespective of which Party may be deemed to have drafted the Agreement or authorized the ambiguous provision. Capitalized terms defined in the singular shall include the plural and vice versa. The terms "includes" and "including" mean "includes, without limitation," and "including, without limitation," respectively. Titles, headings and other captions are for convenience only and shall not affect the meaning or interpretation of this Agreement.

**16.8 Severability.** If any of the provisions of this Agreement are held to be illegal, invalid or unenforceable, such illegal, invalid or unenforceable provisions shall be replaced by legal, valid and enforceable provisions that will achieve to the maximum extent possible the intent of the Parties, and the other provisions of this Agreement shall remain in full force and effect.

**16.9 Entire Agreement.** This Agreement, together with the Ancillary Agreements and the exhibits hereto, contain the entire understanding between the Parties with respect to the subject matter hereof and thereof and supersede and terminate all prior agreements, understandings and arrangements between the Parties with respect to such subject matter, whether written or oral.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**16.10 Counterparts; Facsimiles.** This Agreement may be executed in two (2) or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. A facsimile (including a PDF image delivered via email) of this Agreement, including the signature pages hereto, will be deemed to be an original. Notwithstanding the foregoing, the Parties shall deliver original execution copies of this Agreement to one another as soon as practicable following execution thereof.

***[Signature page follows]***

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**IN WITNESS WHEREOF,** the Parties have caused this Agreement to be executed by their respective duly authorized representatives as set forth below.

| **CORVUS PHARMACEUTICALS, INC.** | | **GENENTECH, INC.** | |
|---|---|---|---|
| Signed: | /s/ Richard Miller | Signed: | /s/ Mark Davis |
| Name: | Richard A. Miller | Name: | Mark Davis |
| Title: | CEO | Title: | Lifecycle Leader |

***[Signature page to PhI/Ib Combination Study Agreement]***

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**CONFIDENTIAL**

**EXHIBIT A**

**PROTOCOL FOR THE STUDY**

***[see separate attachment]***

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**CONFIDENTIAL**

**EXHIBIT B**

**SAMPLE ANALYSIS PLAN**

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



**CONFIDENTIAL**

**EXHIBIT C**

**GENENTECH MOLECULE SUPPLY PLAN**

**Schedule of Deliveries for the Genentech Molecule**

Genentech will supply the quantities of Genentech Molecule set forth below. [***].

The delivery dates below are based on the [***].

[***]

**Genentech Molecule Information**

| | |
|---|---|
| [***] | [***] |
| [***] | [***] |

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



---

| | |
|---|---|
| [***] | [***] |
| [***] | [***] |
| [***] | [***] |
| [***] | [***] |
| [***] | [***] |

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



---

**CONFIDENTIAL**

**CLINICAL STUDY PROTOCOL**

**Adenosine-2A Receptor Antagonist CPI-444**

863 Mitten Road, Suite 102
Burlingame, CA 94010-1311
Telephone: +1 (650) 900-4520
email: Admin@CorvusPharma.com

| | |
|---|---|
| Study Title | A Phase 1/1b, Open-Label, Multicenter, Repeat-Dose, Dose-Selection Study of CPI-444 as Single Agent and in Combination with Atezolizumab in Patients with Selected Incurable Cancers |
| Protocol Number | CPI-444-001 |
| Development Phase | Phase 1 |
| IND Number | 126,559 |
| Drug Substance | Adenosine-2A ($A_{2A}$) Receptor Antagonist CPI-444<br>[***] |
| Indication | Treatment of patients with selected incurable cancers |
| Medical Monitor | [***]<br>Vice President of Clinical Development<br>Corvus Pharmaceuticals, Inc.<br>Phone: [***]<br>Email: [***] |
| Sponsor | Corvus Pharmaceuticals, Inc.<br>863 Mitten Road, Suite 102<br>Burlingame, CA 94010 |
| Protocol Version: Date | Original: September 24, 2015 |

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

---



[***]

[***] 105 Pages of Exhibit A constituting the relevant clinical study protocol have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted pages.

QuickLinks -- Click here to rapidly navigate through this document

**Exhibit 23.1**

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the use in this Amendment No. 1 to the Registration Statement on Form S-1 of Corvus Pharmaceuticals, Inc. of our report dated February 8, 2016 relating to the financial statements of Corvus Pharmaceuticals, Inc., which appears in such Registration Statement. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
San Jose, California
February 8, 2016

QuickLinks

**Exhibit 24.2**

**POWER OF ATTORNEY**

The undersigned director of Corvus Pharmaceuticals, Inc. hereby constitutes and appoints Richard A. Miller, M.D. and Leiv Lea, and each of them acting individually, as his or her true and lawful attorneys-in-fact and agents, each with full power of substitution, for him or her in any and all capacities, to sign Amendment No. 1 to the registration statement on Form S-1 filed herewith and any and all amendments to such registration statement, including post-effective amendments or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) increasing the number of securities for which registration is sought, and to file the same, with all exhibits thereto and other documents in connection therewith, with the SEC, granting unto said attorneys-in-fact and agents, with full power of each to act alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand this 8th day of February, 2016.

/s/ Steve Krognes

Steve E. Krognes