FIVE PRIME THERAPEUTICS INC

FORM 10-K
(Annual Report)

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2016

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number: 001-36070

Five Prime Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**26-0038620**
(State or other jurisdiction of incorporation or organization)	**(IRS Employer Identification No.)**

Two Corporate Drive
South San Francisco, California 94080
(415) 365-5600
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value $0.001 per share	**Nasdaq Global Select Market**

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files): Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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. (Check one):

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

As of June 30, 2016, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately $1.1 billion, based on the closing price of the registrant's common stock on the NASDAQ Global Select Market on June 30, 2016 of $41.35 per share. Shares of the registrant's common stock held by each officer and director and each person known to the registrant to own 10% or more of the outstanding common stock of the registrant have been excluded in that such persons may be deemed affiliates. This determination of affiliate status is not a determination for other purposes.

As of February 17, 2017, the registrant had 28,957,118 shares of common stock, par value $0.001 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement, or the Proxy Statement, for the 2017 Annual Meeting of Stockholders of the registrant are incorporated by reference into Part III of this Annual Report on Form 10-K. The Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended December 31, 2016.

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In this report, unless otherwise stated or the context otherwise indicates, references to "Five Prime," "the company," "we," "us," "our" and similar references refer to Five Prime Therapeutics, Inc. The Five Prime logo and RIPPS ® are our registered trademarks. This report also contains registered marks, trademarks and trade names of other companies. All other trademarks, registered marks and trade names appearing in this report are the property of their respective holders.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This Annual Report on Form 10-K contains forward-looking statements. In some cases you can identify these statements by forward-looking words such as "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect," or similar expressions, or the negative or plural of these words or expressions. These forward-looking statements include statements concerning the following:

- our estimates regarding our expenses, revenues, anticipated capital requirements and our needs for additional financing;
- our receipt of future milestone payments and/or royalties, and the timing of such payments;
- our or our partners' ability to timely advance drug candidates into and through clinical data readouts and successful completion of clinical trials;
- the timing of the initiation, progress and results of preclinical studies and research and development programs;
- our expectations regarding the potential safety, efficacy or clinical utility of our product candidates;
- the implementation, timing and likelihood of success of our plans to develop companion diagnostics for our product candidates;
- our ability to establish and maintain collaborations and necessary licenses;
- the implementation of our business model and strategic plans for our business, product candidates and technology;
- the scope of protection we establish and maintain for intellectual property rights covering our product candidates and technology;
- the size of patient populations targeted by products we or our partners develop and market adoption of such products by physicians and patients;
- the timing or likelihood of regulatory filings and approvals;
- the ability to negotiate adequate reimbursement and pricing for our drug candidates by third parties and government authorities;
- developments relating to our competitors' and our industry; and
- our expectations regarding licensing, acquisitions and strategic operations.

These statements are only current predictions and are subject to known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. We discuss many of these risks in this report in greater detail under the heading "Risk Factors" and elsewhere in this report. You should not rely upon forward-looking statements as predictions of future events.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. Except as required by law, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this report.

We obtained the industry, market and competitive position data in this annual report from our own internal estimates and research as well as from industry and general publications and research surveys and studies conducted by third parties. While we believe that each of these studies and publications is reliable, we have not independently verified market and industry data from third-party sources. While we believe our internal company research is reliable and the market definitions we use are appropriate, neither such research nor these definitions have been verified by any independent source.

PART I.

Item 1. Business.

Our Company

We are a clinical-stage biotechnology company focused on discovering and developing innovative protein therapeutics to improve the lives of patients with serious diseases. We currently have three product candidates in clinical development covering multiple potential indications. Each of our product candidates has an innovative mechanism of action and addresses patient populations for which better therapies are still needed. We have an emphasis in immuno-oncology, an area in which we have clinical and discovery programs and product and discovery collaborations. In addition, we plan to use companion diagnostics for our clinical programs where appropriate to allow us to select patients most likely to benefit from treatment. Our most advanced product candidates are identified below.

- **Cabiralizumab** (FPA008) is an antibody that inhibits colony stimulating factor-1, or CSF1, receptor, or CSF1R, that we are studying in clinical trials as a monotherapy in pigmented villonodular synovitis, or PVNS, and in multiple cancers in combination with Bristol-Myers Squibb Company's PD-1 immune checkpoint inhibitor , *Opdivo* ® (nivolumab). In October 2015, we entered into a license and collaboration agreement, or the cabiralizumab collaboration agreement, with Bristol-Myers Squibb Company, or BMS, pursuant to which we granted BMS an exclusive worldwide license for the development and commercialization of cabiralizumab.
- **FPA144** is an antibody that inhibits fibroblast growth factor receptor 2b, or FGFR2b, that we are initially developing to treat patients with gastric (stomach) cancer and is in a Phase 1 clinical trial.
- **FP-1039** is a fusion protein that "traps" and neutralizes cancer-promoting fibroblast growth factors, or FGFs, involved in cancer cell proliferation and new blood vessel formation that is in Phase 1b clinical development to treat patients with malignant pleural mesothelioma.

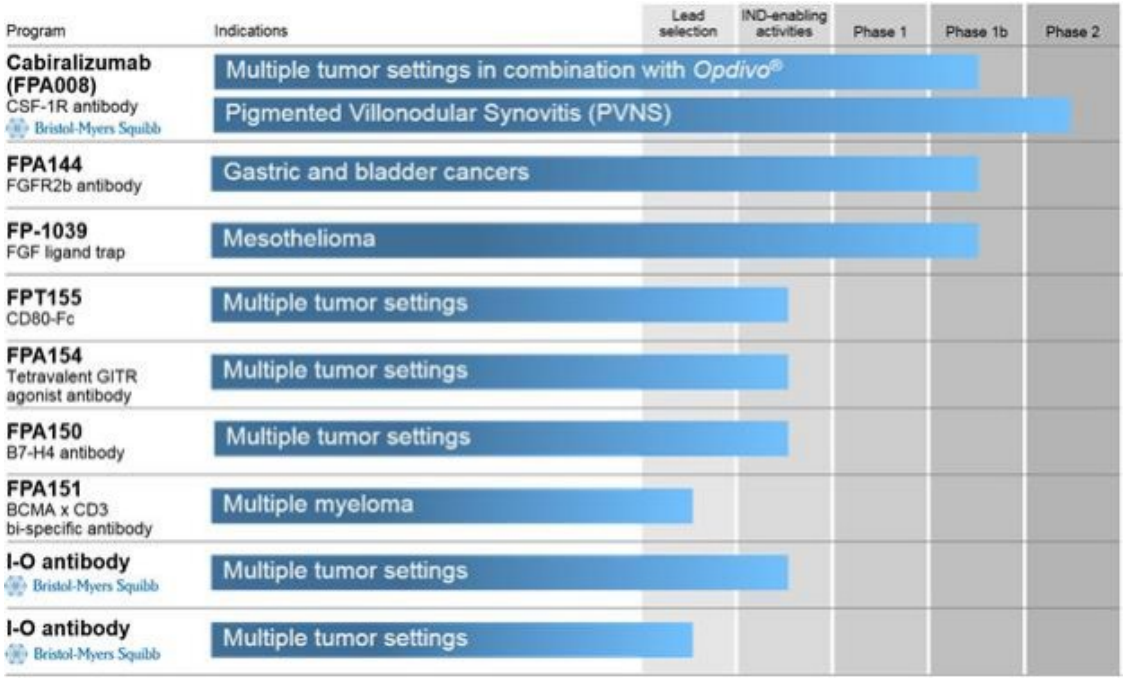
We have a differentiated target discovery platform and library of more than 5,700 human transmembrane and extracellular soluble proteins that we believe encompasses substantially all of the body's medically important targets for protein therapeutics. We have identified approximately 700 of these proteins, which we refer to as the immunome, that we believe modulate immune cell interactions and may be important in understanding and treating cancer patients using immuno-oncology therapeutics. Our target discovery platform and capabilities uniquely position us to explore pathways in cancer and inflammation and their intersection in immuno-oncology, an area of oncology with significant therapeutic potential and the focus of our research activities. We are applying all aspects of our biologics discovery platform, including cell-based screening, immunome-by-immunome screening, *in vivo* screening, receptor-ligand matching technologies and bioinformatics, in our immuno-oncology research program. We have identified several targets that we believe could be useful in immuno-oncology that we are actively validating, and we are also looking for additional targets. We generate and preclinically test therapeutic proteins, including antibodies and ligand traps containing or directed to the targets we identify. We plan to advance selected therapeutic candidates into clinical development, with a goal of filing at least one Investigational New Drug, or IND, application for a new molecule each year beginning in 2017.

Our Strategy

Our goal is to use our differentiated target discovery platform and library to maintain our leadership position in the discovery of innovative protein therapeutic targets and to build a leadership position in the development and commercialization of immuno-oncology therapeutics. The key elements of our strategy to achieve this goal are:

- ***Focus on immuno-oncology protein therapeutics.*** Cancer therapeutics accounted for over $107 billion in global sales in 2015, and immuno-oncology therapeutics represent a growing portion of these sales. However, there continues to be significant medical needs for innovative and effective therapies to treat cancer. With the productivity of our target discovery platform and the significant experience and expertise of our research, preclinical and clinical scientists in the field of immuno-oncology, we believe we are well positioned to identify new targets and to develop effective, innovative protein therapeutics.
- ***Continue to advance and expand our internal pipeline.*** Three of our product candidates, cabiralizumab, FPA144 and FP-1039, are currently in clinical development, and three others, FPA150, FPA154 and FPT155 are in IND-enabling studies. We plan to focus our resources on the further development of these product candidates, discovering and developing new therapeutic candidates with our platform, and potentially in-licensing additional product rights from third parties to expand our development pipeline.
- ***Establish additional product and clinical collaborations to supplement our internal development capabilities and generate funding.*** From time to time, we expect to establish additional product and clinical collaborations. These collaborations will supplement our development, manufacturing, regulatory and commercialization capabilities, provide us with significant funding to advance our pipeline and validate our technology.
- ***Build a commercial enterprise by retaining rights for products in targeted specialty markets.*** We plan to build sales and marketing capabilities in selected specialty markets in the United States that we can adequately serve as we work toward becoming a focused commercial organization. We currently have global rights to all our product candidates, except for cabiralizumab. Our cabiralizumab collaboration agreement with BMS provides us with an option to co-promote cabiralizumab in the United States.

Our Pipeline

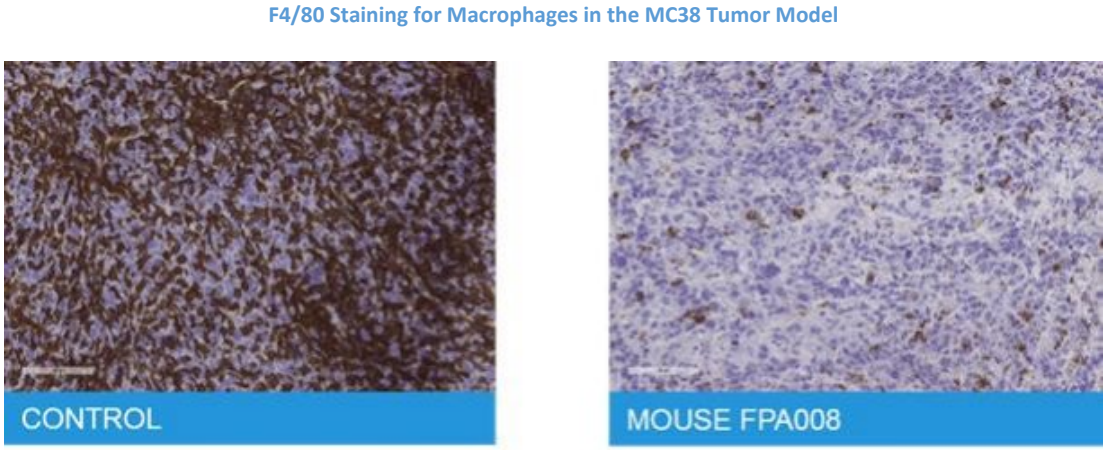


Clinical Programs

Cabiralizumab

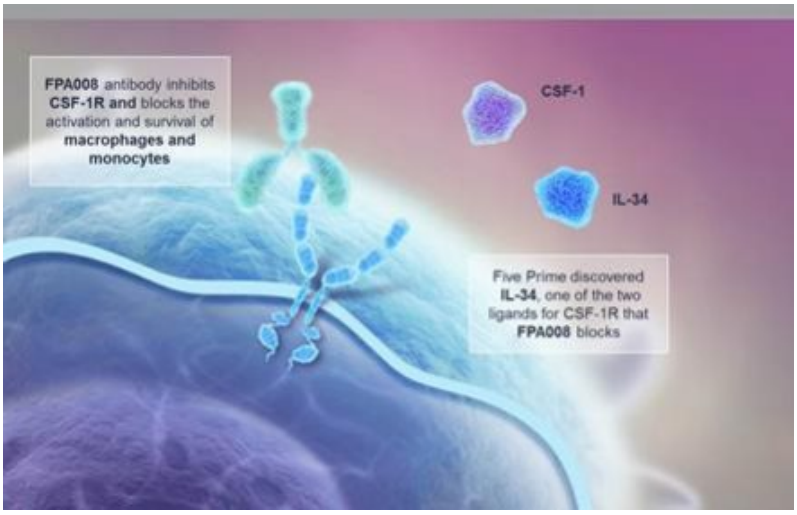
Cabiralizumab is an antibody that inhibits CSF1R. CSF1R is a cell surface protein that controls the survival and function of certain immune response cells called monocytes and macrophages. Monocytes and macrophages are elevated or activated in multiple disease settings. In cancer, macrophages suppress the immune system's ability to kill cancer cells. In joint diseases, macrophages contribute to inflammation and, in diseases such as PVNS, can form tumor masses. Cabiralizumab blocks the activation and survival of these cell types. In many cancers, inhibition of CSF1R reduces the number of immunosuppressive tumor-associated macrophages, or TAMs, thereby facilitating an immune response against tumors. The staining images in Figure 1 below show the inhibitory effect cabiralizumab has on TAMs in a tumor model. We believe the combination of cabiralizumab with T cell checkpoint inhibitors, such as PD-1 inhibitors, or immune agonists may have synergistic therapeutic effects in treating cancer.

Figure 1: Inhibition of Tumor-Associated Macrophages by Cabiralizumab



Using our differentiated target discovery platform and library, we discovered a protein called interleukin-34, or IL-34, that is a key regulator of monocyte and macrophage numbers and activity. Once we discovered IL-34, we were able to use our protein library and ligand-receptor matching technology to identify its receptor, CSF1R. This receptor is known to be expressed on the surface of monocytes and macrophages. Before our discovery of IL-34, CSF1R was thought to have only one ligand called CSF1. Both CSF1 and IL-34 bind to and activate CSF1R and therefore promote the survival and activity of monocytes and macrophages. Cabiralizumab blocks the binding of both CSF1 and IL-34 to CSF1R and thereby inhibits the activity and survival of these cells (Figure 2).

Figure 2: Cabiralizumab Mechanism of Action



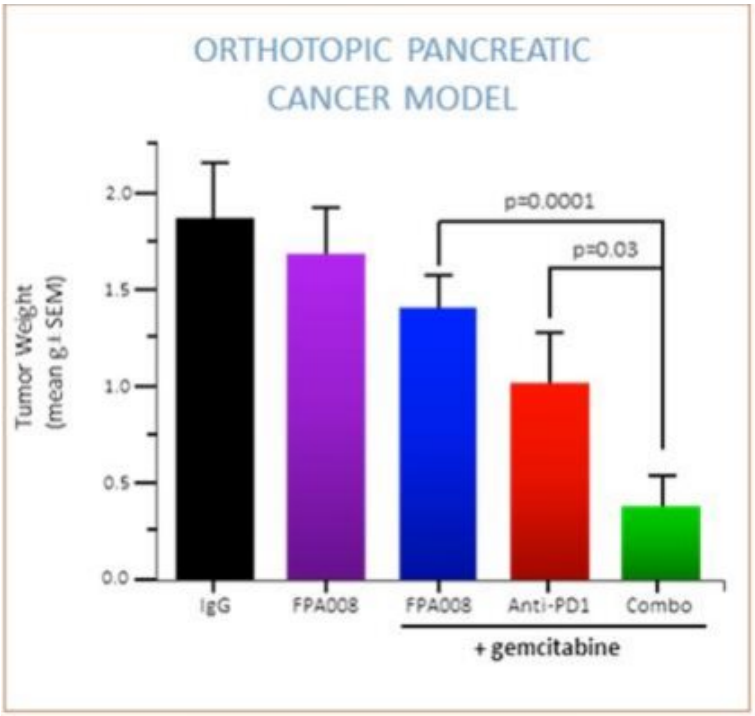
Cabiralizumab in Immuno-Oncology

We believe that there is a strong rationale for combining cabiralizumab with checkpoint inhibitors to treat cancer, including that:

- TAMs are immunosuppressive and act by inhibiting CD8 T cell responses while enhancing recruitment and differentiation of regulatory T cells, or Tregs;
- TAMs often correlate with poor prognosis in cancer patients;
- TAMs appear to be sensitive to CSF1R inhibition; and
- we believe that CSF1R inhibition in combination with checkpoint inhibitors (e.g., anti-PD1 or anti-CTLA-4 antibodies) or immune agonists (e.g., anti-CD40 antibodies) may synergistically induce tumor regressions.

These points suggest that combining an anti-CSF1R antibody, such as cabiralizumab, with an anti-PD1 antibody, such as *Opdivo* , may benefit cancer patients. In preclinical studies, we observed cabiralizumab to be highly effective in blocking the growth of pancreatic tumors when combined with an anti-PD1 antibody and gemcitabine, as shown in Figure 3 below.

Figure 3: Tumor Weight Reduction of Cabiralizumab in Combination with Anti-PD1 Antibody and Gemcitabine



We initially tested cabiralizumab in a Phase 1 clinical trial in healthy volunteers and rheumatoid arthritis subjects to obtain data on safety, pharmacokinetics, or PK, and biomarkers in doses of up to 10 mg/kg. During the trial, we administered cabiralizumab to a total of 54 subjects. All adverse events observed were Grade 1 or Grade 2, despite exposure to cabiralizubmab at doses up to 10 mg/kg, and were reversible. The most common treatment-related adverse event was eyelid/periorbital edema, which is a class effect for compounds targeting the CSF1R pathway. We observed modulation of CD14+CD16++ non-classical monocytes and bone turnover markers and dose-dependent increases in serum CSF1 and IL-34 levels in the trial, both of which demonstrated the anti-CSF1R effect of cabiralizumab.

We are currently conducting a Phase 1a/1b clinical trial to evaluate the safety, tolerability and preliminary efficacy of combining cabiralizumab with *Opdivo* as a potential treatment for a variety of cancers. The trial is currently expected to enroll approximately 280 patients. In October 2016, we initiated the Phase 1b portion of the trial to evaluate the safety, tolerability and preliminary efficacy of the selected dose of cabiralizumab in combination with *Opdivo* in the following tumor settings:

- second- or third-line non-small cell lung cancer, or NSCLC (anti PD-1 therapy naïve);
- anti-PD-1 therapy resistant NSCLC (either de novo or acquired resistance);
- second-line squamous cell carcinoma of the head and neck;
- second-line pancreatic cancer;
- third-line renal cancer;
- third-line ovarian cancer; and
- second-line glioblastoma multiforme, or GBM.

We continue to enroll patients in an expansion of the Phase 1a portion of the trial to enable us to study the dose of cabiralizumab selected for expansion in the Phase 1b portion of the trial as monotherapy and as combination therapy with *Opdivo* in patients with certain tumor types beyond those addressed in the Phase 1b cohorts, including in patients whose tumors are refractory to PD-1 checkpoint inhibitors. We are conducting these additional Phase 1a activities in parallel with the Phase 1b portion of the trial.

We also believe that cabiralizumab may have additive or synergistic therapeutic effects when combined with other T cell checkpoint inhibitors, in addition to PD-1 inhibitors such as *Opdivo* , or immune agonists. We plan to continue to evaluate the potential clinical development of cabiralizumab in combination with these other checkpoint inhibitors and immune agonists.

Cabiralizumab in PVNS

PVNS is a rare neoplastic joint disease, characterized by a locally aggressive tumor of the synovium. It is characterized by local overexpression of CSF1, which recruits macrophages into the joints, forming the non-malignant tumor mass. It is associated with high morbidity, and there are no approved therapies for the condition. We believe that administering cabiralizumab to PVNS patients will reduce infiltration of monocytes and macrophages into affected joints of these patients and inhibit the activity and survival of the monocytes and macrophages that form the bulk of the tumor mass, resulting in tumor shrinkage, pain reduction and increased use of the affected joint.

There are two primary forms of PVNS: localized and diffuse. In localized PVNS, the tumor involves the tendons that support the affected joint or occurs in just one area of the affected joint. Localized PVNS is often surgically resectable and typically responds well to surgical treatment. Diffuse PVNS is more widespread throughout an entire joint, tends to be more destructive, may not be resectable and is more difficult to treat. We are conducting a Phase 1/2 clinical trial of cabiralizumab as a potential treatment for diffuse PVNS. During the Phase 2 expansion portion of the trial, we are evaluating tumor response rate and duration and measures of pain and joint function in PVNS patients. We expect to complete patient enrollment in the planned Phase 2 portion of the trial in the first half of 2017. During 2017, we plan to seek guidance from regulatory authorities on advancing cabiralizumab to a pivotal trial in diffuse PVNS patients.

In January 2016, the U.S. Food and Drug Administration, or the FDA, granted cabiralizumab Orphan Drug Designation for the treatment of PVNS. Orphan Drug Designation is granted by the FDA Office of Orphan Drug Products to products that treat rare diseases. The FDA defines rare diseases as those affecting fewer than 200,000 people in the United States.

In December 2016, the European Commission, following an evaluation by the European Medicines Agency's Committee for Orphan Medicinal Products, designated cabiralizumab as an orphan medicinal product for the treatment of PVNS. The European Commission grants orphan medicinal product designation to products that are intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting not more than five in 10,000 people in the European Union.

Orphan Drug Designation in the United States and orphan medicinal product designation in the European Union each provide certain benefits and incentives in their respective jurisdictions, including a period of marketing exclusivity for the first marketing application if regulatory approval is received for the designated indication, potential tax credits for certain activities and waiver of certain administrative fees.

FPA144

FPA144 is an antibody that inhibits FGFR2b that we are initially developing to treat a subset of gastric (stomach) cancer patients whose tumors overexpress FGFR2b, as determined by an immunohistochemistry, or IHC, diagnostic test. This subset of tumors that overexpress the FGFR2b protein is associated with lower overall survival. We are working with a third party specializing in companion diagnostic development in order to develop an IHC companion diagnostic to identify gastric cancer patients who have FGFR2b overexpressing tumors and who would be most likely to benefit from treatment with FPA144.

We believe that FPA144 acts on tumor cells in two ways:

- FPA144 binds to FGFR2b and blocks certain FGFs from binding to FGFR2b, preventing these FGFs from promoting the growth of the tumor cells; and
- once FPA144 binds to FGFR2b on the surface of the tumor cell, FPA144 recruits natural killer, or NK, immune cells into the tumor microenvironment to kill the tumor cell in a process called antibody-dependent cell-mediated cytotoxicity, or ADCC.

Clinical Development of FPA144. We are conducting a Phase 1 clinical trial of FPA144 as a treatment for gastric cancer. We completed the dose escalation portion of the trial in 19 patients with solid tumors and 8 gastric cancer patients in 2016. We are currently enrolling patients in the expansion portion of the trial in which we are evaluating the safety, PK and efficacy of FPA144 in metastatic gastric cancer patients, with the aim of exploring the correlation between efficacy and FGFR2b overexpression. We are conducting tumor testing for FGFR2b overexpression centrally using a proprietary IHC assay to identify patients who have tumors that overexpress the FGFR2b protein. We are enrolling gastric cancer patients in four separate cohorts based on whether a patient's tumor sample has high, moderate, low or no FGFR2b protein overexpression. We began enrollment in the cohorts of patients with high and no overexpression in November 2015. In the third quarter of 2016, we opened enrollment in the cohorts of patients with moderate and low overexpression.

We also have opened for enrollment an additional cohort in this Phase 1 clinical trial to test FPA144 as a treatment for bladder cancer patients whose tumors overexpress FGFR2b.

In June 2016, we presented safety and tolerability data from 27 patients and PK data from 23 patients from our Phase 1 clinical trial at the American Society of Clinical Oncology's (ASCO) 2016 Annual Meeting. In that trial, we tested FPA144 in advanced solid tumors up to 15 mg/kg in the first 40 patients. We did not observe any dose-limiting toxicities or a maximum-tolerated dose in Part 1. The most common treatment-emergent adverse events were Grades 1 or 2 and self-limiting. Unlike small molecule FGF receptor kinase inhibitors, which block signaling through a broad number of FGF receptors and can lead to hyperphosphatemia, no treatment-related hyperphosphatemia was observed in patients treated with FPA144. The most common treatment-related adverse events were: fatigue (22.5%), nausea (20.0%), vomiting (12.5%), diarrhea (7.5%), dry eye (7.5%), keratitis (7.5%), an increase in lacrimation (7.5%) and pruritus (7.5%).

We observed preliminary anti-tumor activity with FPA144 monotherapy in patients with gastric cancer whose tumors overexpress the FGFR2b protein who were enrolled in the trial as well as an urothelial bladder cancer patient who was enrolled in the dose escalation portion of the trial. Based on radiographic assessments by RECIST 1.1 of anti-tumor activity in the nine patients who had FGFR2b-overexpressing gastric cancer, we observed, as of April 1, 2016, the data cutoff date:

- three confirmed partial responses (one each at the 6 mg/kg, 10 mg/kg and 15 mg/kg dose levels);
- four confirmed stable disease responses (one each at the3 mg/kg and 10 mg/kg dose levels and two at the 15 mg/kg dose level); and
- two progressive disease responses (one each at the 10 mg/kg and 15 mg/kg dose levels).

We also observed a confirmed complete response by computed tomography (RECIST 1.1) and metabolic response by PET in the urothelial bladder cancer patient who received 3 mg/kg in the dose escalation portion of the trial. Based on the activity observed, we tested the bladder cancer patient’s tumor for FGFRb expression and determined that the patient’s tumor overexpressed the FGFR2b protein. This observation suggests that FPA144 may be efficacious in tumors other than gastric with FGFR2b protein overexpression.

Because the observed incidence of gastric cancer is higher in Asian populations than in other populations, we plan to initiate a Phase 1 clinical trial in Japan in the second half of 2017.

We plan to initiate in 2017 a Phase 1b trial to evaluate FPA144 in combination with standard of care chemotherapy as a potential treatment for newly diagnosed or advanced gastric cancer patients. During 2017, we plan to seek guidance from regulatory authorities on our plans to advance FPA144 in combination with standard of care chemotherapy to a pivotal trial in first-line or second-line gastric cancer patients whose tumors overexpress FGFR2b. We plan to continue evaluating whether FPA144 may have use as a treatment for other types of cancer.

In conjunction with developing FPA144 as a therapeutic for gastric cancer, we are developing a proprietary IHC assay in collaboration with a diagnostic development company to use as a companion diagnostic to identify gastric cancer patients whose tumors overexpress FGFR2b. We plan to develop the companion diagnostic in parallel with our clinical development of FPA144 and to pursue regulatory approval of the companion diagnostic concurrently with regulatory approval of FPA144. In addition, we are investigating whether FGFR2b overexpression due to *FGFR2* gene amplification can be detected in circulating tumor DNA, which is DNA shed from tumors that circulates in blood plasma outside of cells, to determine whether we can consider developing a blood-based (liquid biopsy) assay as a companion diagnostic to identify gastric cancer patients whose tumors overexpress FGFR2b .

In April 2016, we presented preclinical data at the 2016 American Association for Cancer Research (AACR) Annual Meeting from our evaluation of the immune cell recruitment and anti-tumor effects of FPA144 in the orthotopic 4T1 model of breast cancer in mice.

Market Opportunity. Globally, gastric cancer is the sixth most common malignancy with the third highest mortality. In the United States, the prevalence of gastric cancer is approximately 74,000 patients , of which we believe approximately 3,700 have *FGFR2* gene-amplified tumors that overexpress FGFR2b and are more likely to respond to FPA144 , and globally, the prevalence of gastric cancer is approximately 1.5 million patients , of which we believe approximately 75,000 have *FGFR2* gene-amplified tumors that overexpress FGFR2b and are more likely to respond to FPA144 .

In June 2016, the FDA granted Orphan Drug Designation to FPA144 for the treatment of gastric cancer, including cancer of the gastroesophageal junction in patients whose tumors overexpress FGFR2b. We believe that our clinical development organization is well suited to conduct such a focused, capital-efficient clinical development plan for FGFR2b overexpressing gastric cancer.

We plan to develop and commercialize FPA144 ourselves in the United States and possibly Canada and Europe. We plan to seek a collaborator to commercialize FPA144 in other countries.

FP-1039

FP-1039 is a protein therapeutic that we designed to "trap" and neutralize cancer-promoting FGFs. These FGFs act by binding to and activating fibroblast growth factor receptors, or FGFRs. FGFs and FGFRs regulate tumor cell proliferation and the growth of new blood vessels, a process called angiogenesis. The FGF family consists of 22 known proteins called ligands that exert their physiological effect on cells by binding to four FGFRs (FGFR1, FGFR2, FGFR3 and FGFR4). Dysregulation of the FGF pathway has been linked to the growth of human tumors and poor patient prognosis.

FP-1039 may provide clinical benefit in certain tumor settings by trapping FGF ligands such as FGF-2 that are overexpressed or over-produced by tumor cells and promote tumor growth through angiogenesis. By triggering angiogenesis, cancerous cells can fuel their metabolic needs and direct their own uncontrolled cell division. Mesothelioma tumors have some of the highest overexpression levels of FGF-2 and is a tumor setting that has a high unmet need for effective treatments.

Unlike other therapies directed to FGFR1 that indiscriminately block all FGFs, FP-1039 is designed to only block cancer-promoting FGFs that bind to FGF receptor 1, or FGFR1, and therefore may be associated with better tolerability than other known product candidates that target the FGF pathway less selectively, such as certain small molecule FGFR tyrosine kinase inhibitors. For example, FP-1039 does not bind to an FGF called FGF-23, which regulates phosphate levels in the blood, and therefore FP-1039 does not change phosphate levels in the blood. This is in contrast to certain small molecule inhibitors of FGF receptors that block the activity of both cancer-associated FGFs and FGF-23 and are reported to cause abnormally high phosphate levels in the blood, a condition known as hyperphosphatemia. High phosphate levels can lead to calcification in tissues, including blood vessels. We expect that FP-1039 could be used in dosages high enough to fully block cancer-promoting FGFs, and that it has the potential to be safely combined with standard of care chemotherapy.

Clinical Development of FP-1039. We completed a Phase 1 clinical trial of FP-1039 designed to assess the safety, tolerability and PK of single-agent FP-1039 administered weekly to 39 subjects with a variety of metastatic tumors. During the Phase 1 clinical trial, no maximum tolerated dose was observed and FP-1039 treatment was not associated with hyperphosphatemia or retinal detachment. We also studied blood levels of FGF-2, one of the most important cancer-promoting FGFs, and observed a significant decrease of FGF-2 in all patients tested.

In March 2011, we licensed to Human Genome Sciences, Inc., or HGS, rights to develop and commercialize FP-1039 in the United States, the European Union and Canada. In August 2012, GlaxoSmithKline, or GSK, acquired HGS and HGS is now a wholly owned subsidiary of GSK. HGS/GSK terminated its license to FP-1039 for convenience effective September 5, 2016.

Prior to GSK's termination of the FP-1039 license, GSK had initiated a Phase 1b clinical trial of FP-1039 to evaluate the safety, tolerability, dosage, response rate and duration of response of FP-1039 in combination with front-line pemetrexed and cisplatin in malignant pleural mesothelioma, or MPM, patients. In June 2016, GSK completed enrollment of MPM patients at an expansion dose of 15 mg/kg in the Phase 1b clinical trial and GSK is currently dosing and following patients that remain on the study. Pursuant to the terms of the FP-1039 license, we elected to have GSK complete the conduct of this Phase 1b clinical trial, at GSK's expense.

In June 2016, GSK presented preliminary clinical safety and efficacy data from the Phase 1b trial in mesothelioma patients at the ASCO 2016 Annual Meeting. We and GSK plan to present updated response rate, duration of response and progression-free survival data from the Phase 1b clinical trial at a scientific or medical conference in the second half of 2017.

Market Opportunity. We believe there are currently no approved therapies that specifically block FGFs or FGFRs. We believe selected patients with FGF pathway dysregulation, which has been linked to the growth of human tumors and poor patient prognosis, would be most likely to benefit from treatment with FP-1039. Mesothelioma has the highest FGF-2 levels among various cancers that we have evaluated and a majority of mesothelioma patients have tumors with abnormally high levels of FGF-2. Mesothelioma is an orphan indication in the United States with a prevalence of about 4,000 patients and incidence of about 3,000 patients. Worldwide, there are a total of approximately 14,000 cases of mesothelioma diagnosed each year.

We will base decisions on any future development of FP-1039 in mesothelioma on overall safety as well as the objective response rate, disease control rate, and progression-free survival duration in the ongoing Phase 1b clinical trial and other business considerations, such as drug supply and manufacturing.

Preclinical Programs

FPA150

FPA150 is a CD8 T cell checkpoint inhibitor antibody that targets B7-H4. B7-H4 is a member of the B7 family of checkpoint inhibitors and shares significant homology with the other B7 family members, including PD-L1 and PD-L2. B7-H4 is expressed in several human tumors, including breast, ovarian, endometrial, lung and pancreatic cancers, and its expression correlates with poor prognosis. We designed FPA150 to target tumor cells through two distinct mechanisms of action: (i) by blocking B7-H4 from sending an inhibitory signal to CD8 T cells, and (ii) by enhancing ADCC against B7-H4-expressing tumor cells.

We are currently conducting IND-enabling activities for FPA150, with the goal of filing an IND in the fourth quarter of 2017.

FPA154

FPA154 is a tetravalent agonistic antibody that activates glucocorticoid-induced tumor necrosis factor receptor, or GITR. We identified GITRL, the ligand that binds to and activates GITR, as one of the most potent inhibitors of tumor growth in our *in vivo* screens. GITR is a protein that is selectively expressed on effector T cells and regulatory T cells, or Tregs, and is believed to activate an immune response against tumor cells. GITR expression is highest on activated and intratumoral Tregs. As a tetravalent antibody, FPA154 promotes more efficient GITR crosslinking and signaling through GITR than conventional bivalent GITR antibodies and is designed to have improved CD8 T cell activity in conjunction with significant Treg depletion activity. In preclinical studies, agonist antibodies such as FPA154 have demonstrated the ability to induce tumor regressions, particularly when administered in combination with other immuno-oncology therapies, such as PD-1 antibodies.

We are currently conducting IND-enabling activities for FPA154, with the goal of filing an IND in the fourth quarter of 2017.

FPT155

FPT155 is a soluble CD80-Fc fusion protein that modulates three signaling pathways that we believe increases CD8 T cell activation against tumor cells. CD80 is a member of the B7 family of checkpoint inhibitors that is involved in modulating T cell priming and activation. We believe FPT155 activates the CD8 T cell activating receptor CD28 and reduces tumor cells' ability to evade CD8 T cells by binding to and blocking CTLA-4 and PD-L1, both of which are checkpoint inhibitors. FPT155 was one of the most potent tumor inhibitors that we identified in our *in vivo* screens of more than 500 immunome proteins.

We are currently conducting IND-enabling activities for FPT155, with the goal of filing an IND in 2018.

Immuno-Oncology Drug Discovery and Research Programs

Overview . We are currently focusing our internal research efforts in the area of immuno-oncology. Cancers grow and spread because tumor cells have developed ways to evade elimination by the immune system. For example, cancer cells make proteins that apply the "brakes" to immune cells and prevent the immune cells from killing the tumor cells. One of the most exciting recent discoveries in cancer therapy has been the identification of ways to release these "brakes" and allow the immune cells to once again kill tumor cells. This new approach has the potential to not only reduce tumor growth like traditional therapies, but also to potentially eliminate the cancer entirely in some patients. In addition to releasing the "brakes" on immune cells, other recent discoveries in cancer therapy have focused on identifying ways to "press on the gas" to amplify the anti-tumor immune response. This second approach targets stimulatory pathways on immune cells. Agents that agonize stimulatory pathways can help immune cells overcome inhibitory signals in the tumor microenvironment, resulting in tumor cell killing.

While checkpoint inhibitor therapies have been validated in the clinic with agents targeting the PD-1/PD-L1 and CTLA-4 pathways to release the "brakes," a significant proportion of patients do not respond to these treatments. New targets for immuno-oncology are needed to address those patients who do not respond to or cannot tolerate traditional therapies or agents currently in development. We are applying all aspects of our differentiated target discovery platform to identify protein partners for molecules known to be involved in the anti-tumor immune response. We believe we have identified promising new antibody targets and ligand traps and are actively researching and validating additional immuno-regulatory targets.

Our Biologics Discovery Platform. We are focused on discovering and developing innovative protein therapeutics. Targets for protein therapeutics are proteins in the body that when inappropriately produced or altered can result in human diseases. Protein therapeutics can be designed to reverse these disease-causing mechanisms. There are more than 5,700 proteins in the body that represent potential protein therapeutic targets or therapeutics themselves, but only a few are targeted by currently marketed protein drugs in immuno-oncology, such as PD-1, PD-L1, CTLA-4, IL-2, interferon alpha and CD3.

Traditional ways to discover new targets for protein therapeutics have relied on a slow "trial-and-error" approach studying a single or a small number of proteins at a time. We have developed a platform to improve the traditionally difficult and slow process of discovering new protein therapeutic targets. The platform is based on two components:

- a proprietary library of more than 5,700 human extracellular proteins that we believe is the most comprehensive collection of fully functional extracellular proteins and is an abundant source of medically relevant novel targets for protein therapeutics; and
- proprietary technologies and know-how for producing and testing in *in vitro* , *in vivo* and other assays thousands of proteins at a time to identify potential protein drugs and antibody candidates.

We believe our platform improves and accelerates the discovery of new drug protein targets and protein therapeutics because it can:

- identify novel medically relevant protein targets and protein therapeutics that have little or no previously known biological function or are not in the public domain and cannot easily be discovered by other methods;
- determine the best protein target among many alternatives for a particular disease by screening and comparing nearly all possible medically important targets simultaneously; and
- identify new drug targets more quickly and efficiently than previously possible because it can produce and test thousands of proteins at a time rather than one or just a few at a time.

We have used our platform to identify dozens of targets validated in rodent models in several different disease areas, including in collaboration with our partners, and to build a growing pipeline of product candidates. We believe our platform is particularly well positioned to explore new pathways in immuno-oncology.

Growing Database of Protein Function. We have tested each of the proteins in our library in numerous screens on different cell types, providing us with an extensive database of information regarding how each protein performs in different screens and whether it is specific to a given disease process or has a broader range of activities. The cumulative data from all the screens allows us to identify the most appropriate target.

Collaborations

A part of our strategy is to establish product and clinical collaborations. These collaborations supplement our development, manufacturing, regulatory and commercialization capabilities, provide us with significant funding to advance our pipeline and validate our technology. A summary of our key product, clinical and discovery collaborations is set forth below.

Cabiralizumab Collaboration Agreement with BMS

In October 2015, we entered into the cabiralizumab collaboration agreement with BMS, pursuant to which we granted to BMS an exclusive, worldwide license to develop and commercialize certain CSF1R antibodies, including cabiralizumab, and all modifications, derivatives, fragments or variants of such antibodies, each of which we refer to as a licensed antibody. The cabiralizumab collaboration agreement superseded the clinical trial collaboration agreement that we entered into with BMS in November 2014, or the clinical trial collaboration agreement.

Under the terms of the cabiralizumab collaboration agreement, BMS is responsible, at its expense, for developing cabiralizumab, under a development plan, subject to our option, at our own expense, to conduct certain future studies, including registration-enabling studies to support approval of cabiralizumab in PVNS and in combination with our proprietary internal or in-licensed compounds, including in oncology, each of which we refer to as a Five Prime independent development path . BMS will have the option prior to our commencement of a clinical trial with respect to a Five Prime independent development path to include any such clinical trial in BMS's development plan, and BMS would thereafter bear the associated development costs and milestone payments to us with respect to BMS's development of such Five Prime independent development path. If BMS elects to include in the development plan what would have been a Five Prime independent development path clinical trial, BMS would reimburse us for our development expenses incurred since November 2015, the effective date of the cabiralizumab collaboration agreement, with respect to such Five Prime independent development path.

If BMS does not add a Five Prime independent development path to the development plan before the review of any efficacy data from the first Phase 3 or registration-enabling clinical trial in such Five Prime independent development path, and such Five Prime independent development path indication achieves regulatory approval in the United States or marketing approval in the European Union or Japan, then BMS will reimburse us an amount equal to 125% of our development expenses with respect to such Five Prime independent development path.

We continue to conduct the current Phase 1a/1b clinical trial to evaluate the safety, tolerability and preliminary efficacy of combining *Opdivo* with cabiralizumab in multiple tumor types. BMS bears all costs and expenses relating to the current trial, including manufacturing costs for the supply of cabiralizumab, except that we are responsible for our own internal costs, including internal personnel costs.

BMS is responsible for manufacturing and commercialization of cabiralizumab, and we retain rights to a minority co-promotion option in the United States.

Pursuant to the cabiralizumab collaboration agreement, BMS paid us an upfront fee of $350 million. Additionally, we are eligible to receive up to (i) $505.0 million in specified developmental and regulatory milestone payments for all combination therapies of cabiralizumab with *Opdivo* ; (ii) $542.5 million in specified developmental and regulatory milestone payments for combination therapies of cabiralizumab with one or more of BMS' or our proprietary products, at least one of which is not *Opdivo* , in the field of oncology; and (iii) $340.0 million in specified developmental and regulatory milestone payments for therapeutic uses of cabiralizumab in PVNS and non-oncology indications.

In the event that we achieve a milestone with respect to a particular disease or combination (other than any PVNS-related milestones) under our development rights under the cabiralizumab collaboration agreement, the milestone payment associated with such milestone would be deferred and become payable to us by BMS after cabiralizumab receives regulatory approval in the United States or marketing approval in the European Union or Japan in such disease or combination.

BMS will also be obligated to pay us, with respect to each licensed product in each country, tiered percentage royalties ranging from the high teens to the low twenties, subject to reduction in certain circumstances, on worldwide net sales of such licensed product until the latest of (i) the expiration of certain patents covering such licensed product in such country, (ii) the date on which any applicable regulatory, pediatric, orphan drug or data exclusivity with respect to such licensed product expires in such country, (iii) the date of the first commercial sale in such country of a biosimilar product with respect to such licensed product or (iv) 12 years after the first commercial sale of such licensed product in such country. BMS will be obligated to pay us an additional low single-digit percentage royalty on net sales in the United States in the event we exercise our co-promotion option. We cannot determine the date on which BMS's potential royalty payment obligations to us would expire because BMS has not yet developed any licensed products under the agreement and therefore we cannot identify the date of the first commercial sale or any related patents covering or regulatory exclusivity periods with respect to such licensed product.

Unless earlier terminated by either party, the cabiralizumab collaboration agreement will expire on a licensed product-by-licensed product and country-by-country basis upon the expiration of BMS's payment obligations with respect to each licensed product under the agreement. BMS may terminate the agreement in its entirety or on a region-by-region basis at any time with advance written notice. BMS may also terminate the agreement in its entirety (or on a licensed product-by-licensed product basis) upon written notice based on certain safety reasons. Either party may terminate the agreement in its entirety with written notice for the other party's material breach if such party fails to cure the breach. We may terminate the agreement in its entirety with written notice for BMS's material breach of its diligence obligations with respect to development and obtaining marketing approval, and may terminate the agreement on a region-by-region basis for BMS's breach of its diligence obligations with respect to timely commercialization of a licensed product in a region following marketing approval. Either party also may terminate the agreement in its entirety upon certain insolvency events involving the other party.

GSK Muscle Diseases Collaboration

In July 2010, we entered into a research collaboration and license agreement, or the muscle diseases collaboration, with Glaxo Group Limited, or GSK, to identify potential drug targets and drug candidates to treat skeletal muscle diseases. We conducted three customized cell-based screens and one *in vivo* screen of our protein library under the muscle diseases collaboration. The research term under this collaboration ended in May 2014. In September 2014, GSK exercised its option under the muscle diseases collaboration to obtain an exclusive, worldwide license to an undisclosed muscle disease target we identified using our proprietary target discovery platform.

The muscle diseases collaboration agreement will terminate upon the expiration of the royalty terms of any products that incorporate or target the protein exclusively licensed under the collaboration. In addition, GSK may terminate the agreement at any time with advance written notice, and either party may terminate the agreement with written notice for the other party's material breach if such party fails to cure the breach or upon certain insolvency events.

For information regarding the financial terms of the muscle diseases collaboration, including amounts we have received through December 31, 2016, see "Management's Discussion and Analysis of Financial Condition and Results of Operations – Financial Overview – Collaboration and License Revenue."

GSK Respiratory Diseases Collaboration

In April 2012, we entered into a research collaboration and license agreement, or the respiratory diseases collaboration, with GSK to identify new therapeutic approaches to treat refractory asthma and chronic obstructive pulmonary disease, or COPD, function, with a particular focus on identifying novel protein therapeutics and antibody targets. We conducted six customized cell-based screens of our protein library under the collaboration. In January 2016, we amended the respiratory diseases collaboration to extend the research term to allow for the conduct of additional activities to validate protein targets we discovered in our screens and to increase the research funding that GSK was obligated to pay us under the collaboration. The research term for this collaboration ended in July 2016.

In the course of screening our protein library in the respiratory diseases collaboration, we discovered proteins that may be potential drug targets or drug candidates for treating refractory asthma or COPD. GSK has the right for limited periods of time to evaluate proteins identified in the screens we conducted and obtain an exclusive worldwide license to develop and commercialize products that incorporate or target such proteins.

Prior to the time GSK exercises its right to obtain an exclusive worldwide license to a protein target, we will discuss and agree on track 1 targets, for which GSK will have sole responsibility for the further development and commercialization of products that incorporate or target such protein targets, and track 2 targets, for which we will develop biologics that incorporate or target such protein targets through to clinical proof of mechanism in either a phase 1 or phase 2 clinical trial. We will take into consideration each party's available resources and capabilities at the time in deciding which protein targets will be track 1 targets or track 2 targets, but subject to each party's general right to alternate in such selection and with GSK to have the right to first select.

The respiratory diseases collaboration agreement will terminate upon the expiration of the royalty terms of any products that incorporate or target a protein exclusively licensed under the collaboration. In addition, GSK may terminate the agreement at any time with advance written notice, and either party may terminate the agreement with written notice for the other party's material breach if such party fails to cure the breach or immediately in the case of failure to comply with certain anti-bribery and anti-corruption policies or upon certain insolvency events.

For information regarding the financial terms of the respiratory diseases collaboration, including amounts we have received through December 31, 2016, see "Management's Discussion and Analysis of Financial Condition and Results of Operations – Financial Overview – Collaboration and License Revenue."

UCB Fibrosis and CNS Collaboration

In March 2013, we entered into a research collaboration and license agreement with UCB, referred to as the fibrosis and CNS collaboration, to identify innovative biologics targets and therapeutics in the areas of fibrosis-related immunologic diseases and central nervous system, or CNS, disorders. We conducted five customized cell-based and *in vivo* screens of our protein library under the fibrosis and CNS collaboration. We completed our initial research activities under the fibrosis and CNS collaboration by in March 2016. Following the completion of the research activities, UCB has up to a two-year evaluation period during which we may be obligated to perform additional services at UCB's request.

In the course of screening our protein library in the collaboration we discovered proteins that may be potential drug targets or drug candidates for fibrosis-related immunologic diseases. Under the collaboration, UCB has the right for limited periods of time to evaluate proteins identified in the screens we conducted and obtain an exclusive worldwide license to develop and commercialize products that incorporate or target the protein. If UCB elects to obtain an exclusive license to a protein it has evaluated, UCB would have sole responsibility for the further development and commercialization of products that incorporate or target the protein, at UCB's cost and expense.

The collaboration agreement will terminate upon the expiration of the royalty terms of any products that incorporate or target a protein exclusively licensed under the collaboration. In addition, UCB may terminate the agreement at any time with advance written notice, and either party may terminate the agreement with written notice for the other party's material breach if such party fails to cure the breach or upon certain insolvency events.

For information regarding the financial terms of the fibrosis and CNS collaboration, including amounts we have received through December 31, 2016, see "Management's Discussion and Analysis of Financial Condition and Results of Operations – Financial Overview – Collaboration and License Revenue."

BMS Immuno-oncology Research Collaboration

In March 2014, we entered into a research collaboration and license agreement with BMS, or the immuno-oncology research collaboration, pursuant to which we and BMS are collaborating to carry out a research program to (i) discover novel interacting proteins in two undisclosed immune checkpoint pathways, which we refer to as the checkpoint pathways, using our target discovery platform; (ii) further the understanding of target biology with respect to targets in these checkpoint pathways; and (iii) discover and pre-clinically develop compounds suitable for development for human therapeutic uses against targets in these checkpoint pathways. Based on data arising from our initial screens, in January 2016, we amended the immuno-oncology research collaboration to add an additional checkpoint pathway to the research program, for a total of three undisclosed immune checkpoint pathways.

The initial three-year research term of the immuno-oncology research collaboration will end in March 2017. BMS exercised its option to extend the research term for an additional year to March 2018. BMS has an option to extend the research term for one additional year.

In connection with entering into the immuno-oncology research collaboration, BMS made an upfront payment of $20.0 million to us. Through December 31, 2016, we received $9.0 million of research funding and are eligible to receive up to an additional $2.5 million of research funding through the end of the initial three-year research term and the additional one-year extension term. We are eligible to receive up to $240.0 million per collaboration target in specified developmental, regulatory and commercialization contingent payments comprising aggregate developmental contingent payments of up to $53.0 million, aggregate regulatory contingent payments of up to $74.0 million and aggregate commercialization contingent payments of up to $113.0 million. We are also eligible to receive up to $60.0 million in sales-based contingent payments per collaboration product.

For each commercialized product under the immuno-oncology research collaboration that is directed toward a target in the checkpoint pathways, BMS is also obligated to pay us tiered mid-single digit to low double-digit percentage royalties, subject to reduction in certain circumstances, on net sales of such product for the longer of (i) 12 years after the first commercial sale of such product, (ii) the life of certain patents licensed covering such product or (iii) the date on which any applicable regulatory, pediatric, orphan drug or data exclusivity with respect to such product expires. We cannot determine the date on which BMS's potential royalty payment obligations to us would expire because BMS has not yet commercialized any products under the immuno-oncology research collaboration, and we therefore cannot identify the date of the first commercial sale or any related patents covering such product.

Unless earlier terminated by either party, the immuno-oncology research collaboration will expire on a product-by-product and country-by-country basis upon the expiration of all of BMS's payment obligations under the immuno-oncology research collaboration agreement. BMS may terminate the immuno-oncology research collaboration agreement in its entirety or on a collaboration target-by-collaboration target basis at any time with advance written notice. Either party may terminate the immuno-oncology research collaboration agreement in its entirety or on a collaboration target-by-collaboration target basis with written notice for the other party's material breach if such other party fails to timely cure the breach. Either party also may terminate the immuno-oncology research collaboration agreement in its entirety upon certain insolvency events involving the other party.

In connection with the immuno-oncology research collaboration agreement, BMS purchased 994,352 shares of our common stock at a price of $21.16 per share, for an aggregate purchase price of $21.0 million.

License Agreements

License Agreement with Inhibrx

In July 2015, we entered into a research collaboration and license agreement, or the GITR license agreement, with INBRX 110 LP, or Inhibrx, pursuant to which we obtained (a) an exclusive, worldwide license to multivalent antibodies to GITR for therapeutic and diagnostic uses, which we refer to respectively as licensed therapeutic products and licensed diagnostic products, and (b) an exclusive option, or the option, to obtain exclusive, worldwide licenses to multi-specific antibodies developed by Inhibrx that bind to both GITR and other targets, each of which we refer to as a multi-specific product. We can exercise an option with respect to a multi-specific product within a limited period of time after (i) the occurrence of certain activities related to initiating clinical manufacturing of such multi-specific product or (ii) if not earlier exercised, the dosing of the first patient in a Phase 2 clinical trial of such multi-specific product.

Pursuant to the GITR license agreement, we paid Inhibrx an upfront fee of $10.0 million. Additionally, with respect to each licensed therapeutic product, we will be obligated to pay up to $62.5 million in specified development milestone payments and (i) if such licensed therapeutic product does not receive a Breakthrough Therapy Designation from the FDA, up to $280.0 million in specified regulatory and commercial milestone payments, or (ii) if such licensed therapeutic product receives a Breakthrough Therapy Designation from the FDA, up to $380.0 million in specified regulatory and commercial milestone payments. We may pay all or a portion of milestone payments for development and regulatory events in shares of our common stock, subject to certain limitations and conditions. We would be obligated to register for resale under the Securities Act of 1933, as amended, any such shares of our common stock.

If we exercise our option with respect to a multi-specific product at manufacturing initiation, we would pay Inhibrx $15.0 million for such option exercise. If we exercise our option with respect to a multi-specific product at Phase 2 dosing, we would pay Inhibrx $30.0 million for such option exercise. After such option exercise, such multi-specific product would be treated as a licensed therapeutic product under the GITR license agreement and we would be obligated to pay the milestone payments specified above with respect to such multi-specific product.

Inhibrx is also eligible for low double-digit tiered royalties on future product sales for licensed therapeutic products and low single-digit tiered royalties on future product sales for licensed diagnostic products, in each case, for the longer of (i) 12 years after the first commercial sale of such licensed product or (ii) the life of certain patents licensed covering such licensed product.

Unless earlier terminated by either party, the GITR license agreement will expire on a product-by-product and country-by-country basis upon the expiration of all of our payment obligations under the GITR license agreement. For each licensed product, we are obligated to pay Inhibrx milestone payments upon achievement of certain milestone events for such licensed product, and we are obligated to pay royalties on net sales of such product on a country-by-country basis for the longer of the life of the licensed patents covering such product in such country or 12 years after the first commercial sale of such product in such country. We cannot determine the date on which our royalty payment obligations to Inhibrx would expire because no commercial sales of FPA154 have occurred and the last-to-expire relevant patent covering FPA154 in a given country will be determined in the future. Currently, Inhibrx has pending U.S. and international patent applications, which we have licensed, covering FPA154. Patents that may issue from these pending patent applications would expire in 2036. This patent expiration date does not reflect any patent term extensions that may be available, which are not determinable at this time.

We may terminate the agreement in its entirety at any time with advance written notice. Either party may terminate the agreement in its entirety with written notice for the other party's material breach if such party fails to cure the breach. Either party also may terminate the agreement in its entirety upon certain insolvency events involving the other party.

License Agreement with Galaxy

In December 2011, we entered into a license agreement with Galaxy Biotech LLC, or Galaxy, pursuant to which Galaxy granted us an exclusive worldwide license to develop and commercialize FGFR2b antibodies, including FPA144. Under the license agreement, we are obligated to use commercially reasonable efforts to develop and commercialize at least one licensed product in at least one tumor indication. We paid Galaxy an upfront license fee of $3.0 million in connection with our entry into the license agreement. In May 2016, we amended the license agreement to revise certain milestone definitions, reduce certain milestone payments and add certain development-related milestone payments that were triggered by dosing of certain patients in the current Phase 1 clinical trial of FPA144, which milestones were deemed achieved as of December 31, 2016.

Through December 31, 2016, we made milestone payments to Galaxy totaling $5.1 million. We are obligated to pay Galaxy additional milestone payments of up to $86.9 million comprising aggregate intellectual property-related milestone payments of up to $1.4 million, development-related milestone payments of up to $14.0 million for development in two indications, aggregate regulatory-related milestone payments of up to $41.5 million for two indications and aggregate commercial-related milestone payments of up to $30.0 million. We are also obligated to pay tiered royalties on net sales of FPA144 from the high-single digits to the low-double digits.

Our license agreement with Galaxy will remain in effect until the expiration of our royalty obligations under the license agreement in all countries. For each licensed product, we are obligated to pay Galaxy royalties on net sales of such product on a country-by-country basis for the longer of the life of the licensed patents covering such product in such country or 10 years after the first commercial sale of such product in such country. We cannot determine the date on which our royalty payment obligations to Galaxy would expire because no commercial sales of FPA144 have occurred and the last-to-expire relevant patent covering FPA144 in a given country may change in the future. Currently, Galaxy has an issued patent, which we have licensed, covering FPA144 in the United States that expires in 2029. Galaxy patents that may issue in other countries, including in Europe and Japan, from pending patent applications would expire in 2029. These patent expiration dates do not reflect any patent term extensions that may be available, which are not determinable at this time.

We may terminate the license agreement for convenience in its entirety or on a country-by-country basis upon prior written notice to Galaxy. Either party may terminate the license agreement in its entirety or with respect to certain countries after the first commercial sale of a licensed product in certain circumstances in the event of an uncured material breach by the other party. Either party may terminate the license agreement in the event of the other party's filing or institution of bankruptcy, reorganization, liquidation or receivership proceeding or upon an assignment of a substantial portion of its assets for the benefit of creditors. Galaxy may terminate the license agreement if we or any of our affiliates challenge the validity or enforceability of any patent licensed to us by Galaxy under the license agreement or if we aid or assist any affiliate or third party in such a challenge other than as required by law.

Non-Exclusive License with BioWa-Lonza

In February 2012, we entered into a license agreement with BioWa, Inc. and Lonza Sales AG, or BioWa-Lonza, pursuant to which BioWa-Lonza granted us a non-exclusive license to use their Potelligent ® CHOK1SV technology, including the CHOK1SV cell line, and a non-exclusive license to related know-how and patents. This license is necessary to produce our FPA144 antibody.

We are obligated to pay BioWa-Lonza aggregate milestone payments of up to $25.4 million for development, regulatory and commercialization milestones achieved in our FPA144 antibody program. We are also obligated to pay BioWa-Lonza tiered royalties on net sales of FPA144 up to mid-single digit percentages of the proceeds of such sales.

Our license agreement with BioWa-Lonza will remain in effect until the expiration of our royalty obligations. For each licensed product, we are obligated to pay BioWa-Lonza royalties on net sales of such product on a country-by-country basis for the longer of the life of the licensed patents covering such product in such country or 10 years after the first commercial sale of such product in a major market country, which includes the United States. However, because we believe the last-to-expire patents currently licensed to us under the license agreement would expire in less than 10 years, we believe the date on which our royalty payment obligations to BioWa-Lonza would expire in any country would be 10 years after the first commercial sale of such product in a major market country.

We may terminate the license agreement for convenience subject to our continuing obligation to pay royalties. BioWa-Lonza may terminate the license agreement in the event of our uncured material breach, if we oppose or dispute the validity of patents licensed to us under the license agreement or if we are declared insolvent, make an assignment for the benefit of creditors, are the subject of bankruptcy proceedings or have a receiver or trustee appointed for substantially all of our property.

Intellectual Property

Our intellectual property is critical to our business and we strive to protect it, including by obtaining and maintaining patent protection in the United States and internationally for our product candidates and other biological discoveries relating to new targets, pathways and relevant inventions and technologies that are important to our business. For our product candidates, we generally initially pursue patent protection covering both compositions of matter and methods of use.

Throughout the development of our product candidates, we seek to identify additional means of obtaining patent protection that would potentially enhance commercial success, including through additional methods of use, combination therapy, biomarker and companion diagnostic related claims. We also rely on trade secrets relating to our discovery platform and product candidates and seek to protect and maintain the confidentiality of proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our success will also depend significantly on our ability to obtain rights to intellectual property held by third parties that may be necessary or useful to our business, including for the discovery, development and commercialization of our product candidates. We generally obtain rights to third-party intellectual property through exclusive or non-exclusive licenses. For example, we have entered into a non-exclusive license with BioWa-Lonza to use their Potelligent ® CHOK1SV technology, which is necessary to produce our FPA144 antibody. If we are not able to obtain rights to intellectual property held by third parties that are necessary or useful to our business, our business could be harmed, possibly materially.

The patent positions of biotechnology companies like ours are generally uncertain and involve complex legal, scientific and factual questions. In addition, the coverage claimed in a patent application can be significantly limited before the patent is issued, and its scope can be reinterpreted after issuance. Consequently, we may not obtain or maintain adequate patent protection for any of our product candidates. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient proprietary protection from competitors. Any patents that we hold may be challenged, circumvented or invalidated by third parties. For a more comprehensive discussion of the risks related to our intellectual property, please see "Risk Factors—Risks Related to Our Intellectual Property."

The patent portfolios for our three most advanced programs are summarized below:

Cabiralizumab

Our cabiralizumab patent portfolio includes patents and patent applications wholly owned by us as well as patents jointly owned with BMS. Our patent portfolio includes issued U.S. and foreign patents as well as pending U.S. and foreign patent applications covering compositions of matter, methods of use, biomarkers and combination therapies relating to cabiralizumab. The issued U.S. patents and issued foreign patents covering the composition of matter and methods of use expire in 2031. Patents that may issue from the pending U.S. and foreign applications would expire between 2031 and 2036.

FPA144

Our patent portfolio for FPA144 includes patents and patent applications we exclusively licensed from Galaxy, as well as pending U.S. and foreign patent applications wholly owned by us. The patent portfolio, covering compositions of matter, methods of use, companion diagnostic and combination therapy relating to FPA144, includes issued U.S. and foreign patents as well as pending U.S. and foreign patent applications. The issued U.S. patents expire between 2029 and 2030. The issued foreign patents expire in 2029. Patents that may issue from these pending U.S. and foreign applications would expire between 2029 and 2036.

FP-1039

Our patent portfolio for FP-1039 includes patents and patent applications wholly owned by us, as well as patents we exclusively license from UC Regents.

The FP-1039 patent portfolio that we wholly own includes issued patents and pending patent applications covering compositions of matter, methods of use, including certain combination therapies and dosing regimens, and biomarkers relating to FP-1039. This patent portfolio includes patents issued in the United States and foreign countries. The issued patents expire between 2026 and 2031. The FP-1039 patent portfolio that we wholly own also includes pending U.S. and foreign patent applications covering composition of matter and methods of use. Patents that may issue from these pending U.S. and foreign patent applications would expire between 2026 and 2034.

The FP-1039 patent portfolio also includes issued U.S. and foreign patents we exclusively license from the UC Regents that cover composition of matter and methods of producing FP-1039. These exclusively licensed patents include issued U.S. patents covering composition of matter and methods of producing FP-1039 that expire between 2019 and 2020.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the earliest date of filing a non-provisional patent application.

In the United States, the patent term of a patent that covers an FDA-approved drug may also be eligible for patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Hatch-Waxman Act permits a patent term extension of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. Patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be extended. Similar provisions are available in Europe and some other foreign jurisdictions to extend the term of a patent that covers an approved drug. In the future, if and when our products receive FDA approval, we expect to apply for patent term extensions on patents covering those products. We plan to seek patent term extensions to any of our issued patents in any jurisdiction where these are available; however, there is no guarantee that the applicable authorities, including the FDA in the United States, will agree with our assessment of whether such extensions should be granted, and if granted, the length of such extensions.

We also rely on trade secret protection for our confidential and proprietary information. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. Thus, we may not be able to meaningfully protect our trade secrets. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. Our agreements with employees also provide that all inventions conceived by the employee in the course of employment with us or from the employee's use of our confidential information are our exclusive property.

Manufacturing

We have process development and small-scale, non-clinical manufacturing capabilities. We generally perform cell line and process development for our product candidates and manufacture quantities of our product candidates necessary to conduct preclinical studies of our investigational product candidates. We do not have and we do not currently plan to acquire or develop the facilities or capabilities to manufacture bulk drug substance or filled drug product for use in human clinical trials or commercialization. We rely on third-party manufacturers to produce bulk drug substance required for our clinical trials and expect to continue to rely on third parties to manufacture clinical trial drug supplies for the foreseeable future. BMS has the exclusive right to manufacture cabiralizumab drug substance and filled drug product. BMS will supply us with cabiralizumab, at its cost and expense, for our use in the conduct of the current trial and our Phase 2 clinical trial of cabiralizumab in patients with PVNS and will supply us with cabiralizumab for the conduct of our independent cabiralizumab development activities in exchange for a pre-negotiated service fee. We also contract with additional third parties for the filling, labeling, packaging, storage and distribution of investigational drug products. We have personnel with significant technical, manufacturing, analytical, quality and project management experience to oversee our third-party manufacturers and to manage manufacturing and quality data and information for regulatory compliance purposes.

We must manufacture drug product for clinical trial use in compliance with current Good Manufacturing Practices, or cGMP. The cGMP regulations include requirements relating to organization of personnel, buildings and facilities, equipment, control of components and drug product containers and closures, production and process controls, packaging and labeling controls, holding and distribution, laboratory controls, records and reports, and returned or salvaged products. The manufacturing facilities for our products must meet cGMP requirements and FDA satisfaction before any product is approved. Our third-party manufacturers are also subject to periodic inspections of facilities by the FDA and other authorities, including procedures and operations used in the testing and manufacture of our products to assess our compliance with applicable regulations. Failure to comply with statutory and regulatory requirements subjects a manufacturer to possible legal or regulatory action, including warning letters, the seizure or recall of products, injunctions, consent decrees placing significant restrictions on or suspending manufacturing operations and civil and criminal penalties. These actions could have a material impact on the availability of our products. Contract manufacturers often encounter difficulties involving production yields, quality control and quality assurance, as well as shortages of qualified personnel.

Commercialization

We have not yet established sales, marketing or product distribution operations. We generally expect to retain some commercial rights in the United States for our product candidates in specialty markets. Pursuant to our cabiralizumab collaboration agreement, we have a co-promotion right in the United States which, if we exercise, will allow us to field a minority percentage of the total United States sales force promotional effort. If we exercise our option to co-promote cabiralizumab in the United States prior to submission of a biological license application, or BLA, we expect to commence commercialization activities by building a focused sales and marketing organization in the United States. We believe that such an organization will be able to address the community of oncologists who are the key specialists in treating the patient populations for which cabiralizumab is being developed.

Competition

The biotechnology and pharmaceutical industries are characterized by continuing technological advancement and significant competition. While we believe that our product candidates, technology, knowledge, experience and scientific resources provide us with competitive advantages, we face competition from major pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions, among others. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future. Key product features that would affect our ability to effectively compete with other therapeutics include the efficacy, safety and convenience of our products and the ease of use and effectiveness of any companion diagnostics. The level of generic competition and the availability of reimbursement from government and other third-party payors will also significantly affect the pricing and competitiveness of our products. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

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

Government Regulation and Product Approval

In the United States, the FDA regulates protein therapeutics like cabiralizumab, FPA144, FP-1039 and our other product candidates as biological drug products, or biologics, under the Federal Food, Drug, and Cosmetic Act, the Public Health Service Act and related regulations. Biologics are also subject to other federal, state and local statutes and regulations. Failure to comply with the applicable United States regulatory requirements at any time during the product development process, approval process or after approval may subject an applicant to administrative or judicial actions. These actions could include the suspension or termination of clinical trials by the FDA or an Institutional Review Board, or IRB, the FDA's refusal to approve pending applications or supplements, revocation of a biologics license, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, import detention, injunctions, civil penalties or criminal prosecution. Any administrative or judicial action could have a material adverse effect on us.

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, manufacture and marketing of biologics. These agencies and other federal, state and local entities regulate research and development activities and the testing, manufacture, quality control, safety, effectiveness, purity, potency, labeling, storage, distribution, record keeping and reporting, approval, import and export, advertising and promotion and post-market surveillance of our products.

The FDA's policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of any future product candidates or approval of product or manufacturing changes, new disease indications, or label changes. We cannot predict the likelihood, nature or extent of adverse governmental regulation that might arise from future legislative or administrative action, either in the United States or abroad.

Biologics Marketing Approval

The process required by the FDA before biologics may be marketed in the United States generally involves the following:

- nonclinical laboratory and animal tests;
- submission of an IND application, which must become effective before clinical trials may begin;
- adequate and well-controlled human clinical trials to establish the safety, purity and potency of the proposed biologic for its intended use or uses;
- pre-approval inspection of manufacturing facilities and clinical trial sites; and
- FDA approval of a BLA, which must occur before a biologic can be marketed or sold.

The testing and approval process requires substantial time and financial resources, and we cannot be certain that any new approvals for our product candidates will be granted on a timely basis, if at all.

Our planned clinical trials for our product candidates may not begin or be completed on schedule, if at all. Clinical trials can be delayed for a variety of reasons, including delays in:

- obtaining regulatory approval to commence a study;
- reaching agreement with third-party clinical trial sites and their subsequent performance in conducting accurate and reliable studies on a timely basis;
- obtaining IRB approval to conduct a study at a prospective site;
- recruiting patients to participate in a study; and
- manufacturing or obtaining supply of the investigational product and related materials, such as companion diagnostics.

Before testing any compound in human subjects, a company must develop extensive preclinical data. Preclinical testing generally includes laboratory evaluation of product chemistry and formulation, as well as toxicological and pharmacological studies in several animal species to assess the quality and safety of the product. Animal studies must be performed in compliance with the FDA's Good Laboratory Practice, or GLP, regulations and the United States Department of Agriculture's Animal Welfare Act and related regulations.

Prior to commencing the first clinical trial in humans, an initial IND application must be submitted to the FDA. A company must submit preclinical testing results to the FDA as part of the IND, and the FDA must evaluate whether there is an adequate basis for testing the drug in humans. The IND application automatically becomes effective 30 days after receipt by the FDA unless the FDA within the 30-day time period raises concerns or questions about the conduct of the clinical trial and places the trial on clinical hold. In such case, the IND application sponsor must resolve any outstanding concerns with the FDA before the clinical trial may begin. A separate submission to the existing IND application must be made for each successive clinical trial to be conducted during product development. Further, an independent IRB for each site proposing to conduct the clinical trial must review and approve the plan for any clinical trial before it commences at that site. Informed consent must also be obtained from each study subject. Regulatory authorities, an IRB, a data safety monitoring board or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the participants are being exposed to an unacceptable health risk.

A study sponsor is required to submit to the National Institutes of Health, or NIH, for public posting on NIH's clinical trial website details about certain active clinical trials and clinical trial results. For purposes of BLA approval, human clinical trials are typically conducted in phases that may overlap:

- Phase 1—the biologic is initially given to healthy human subjects or patients and tested for safety, dosage tolerance, reactivity, absorption, metabolism, distribution and excretion. These studies may also provide early evidence of effectiveness. During Phase 1 clinical trials, sufficient information about the investigational product's effects may be obtained to permit the design of well-controlled and scientifically valid Phase 2 clinical trials.
- Phase 2—studies are conducted in a limited number of patients in the target population to identify possible adverse effects and safety risks, to determine the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.
- Phase 3—when Phase 2 evaluations demonstrate that a dosage range of the product appears effective and has an acceptable safety profile and provide sufficient information for the design of Phase 3 clinical trials, Phase 3 clinical trials are undertaken to provide statistically significant evidence of clinical efficacy and to further test for safety in an expanded patient population at multiple clinical trial sites. Phase 3 clinical trials are performed after preliminary evidence suggesting effectiveness of the drug has been obtained, and are intended to further evaluate dosage, effectiveness and safety, to establish the overall benefit-risk relationship of the investigational drug, and to provide an adequate basis for product approval by the FDA.

All of these trials must be conducted in accordance with Good Clinical Practice, or GCP, requirements in order for the data to be considered reliable for regulatory purposes.

Government regulation may delay or prevent marketing of product candidates for a considerable period of time and impose costly procedures upon our activities. We cannot be certain that the FDA or any other regulatory agency will grant approvals for any future product candidates on a timely basis, if at all. Success in early stage clinical trials does not ensure success in later stage clinical trials. Data obtained from clinical activities is not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval.

The Biologic License Application Approval Process

In order to obtain approval to market a biologic in the United States, a BLA must be submitted to the FDA that provides data establishing to the FDA's satisfaction the safety and effectiveness of the investigational product for the proposed indication. Each BLA submission requires a substantial user fee payment unless a waiver or exemption applies. The application includes all relevant data available from pertinent nonclinical studies and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls and proposed labeling, among other things. Data can come from company-sponsored clinical trials intended to test the safety and effectiveness of a use of a product, or from a number of alternative sources, including studies initiated by investigators.

The FDA will initially review the BLA for completeness before it accepts it for filing. Under the FDA's procedures, the agency has 60 days from its receipt of a BLA to determine whether the application will be accepted for filing based on the agency's threshold determination that the application is sufficiently complete to permit substantive review. After the BLA submission is accepted for filing, the FDA reviews the BLA to determine, among other things, whether the proposed product is safe, pure and potent, which includes determining whether it is effective for its intended use, and whether the product is being manufactured in accordance with cGMP, and to assure and preserve the product's identity, strength, quality, potency and purity. The FDA may refer applications for novel products or products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and, if so, under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

During the approval process, the FDA also will determine whether a Risk Evaluation and Mitigation Strategy, or REMS, is necessary to assure that the benefits of the biologic outweigh its risks. A REMS may include various elements depending on what the FDA considers necessary for the safe use of the drug. These elements range from a medication guide or patient package insert to training and certification requirements for prescribers and/or pharmacies to safe use conditions that must be in place before the drug is dispensed. If the FDA concludes that a REMS is needed, the BLA sponsor must submit a proposed REMS or the FDA will not approve the BLA.

Based on pivotal Phase 3 clinical trial results submitted in a BLA, at the discretion of the FDA or upon the request of an applicant, the FDA may grant a priority review designation to a product, which sets the target date for FDA action on the application at six months from the FDA's 60-day filing date for the BLA rather than the standard 12 months. Priority review is given for a product that treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness compared to marketed products or offer a therapy where no satisfactory alternative therapy exists. Priority review designation does not change the scientific/medical standard for approval or the quality of evidence necessary to support approval.

After the FDA completes its review of a BLA, it will either communicate to the sponsor that it will approve the product, or issue a complete response letter to communicate that it will not approve the BLA in its current form and to inform the sponsor of changes that the sponsor must make or additional clinical, nonclinical or manufacturing data that must be received before the FDA can approve the application, with no implication regarding the ultimate approvability of the application. If a complete response letter is issued, the sponsor may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application. Resubmitting a BLA in response to a complete response letter can add additional time to the approval process for a product.

Before approving a BLA, the FDA will inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and are adequate to assure consistent production of the product within required specifications. Additionally, before approving a BLA, the FDA may inspect one or more clinical sites to assure compliance with GCP. If the FDA determines the application, manufacturing process or manufacturing facilities are not acceptable, it typically will outline the deficiencies and often will request additional testing or information. This may significantly delay further review of the application. If the FDA finds that a clinical site did not conduct the clinical trial in accordance with GCP, the FDA may determine the data generated by the clinical site should be excluded from the primary efficacy analyses provided in the BLA. Additionally, notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

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

The FDA may require, or companies may pursue, additional clinical trials after a product is approved. These so-called Phase 4 clinical trials may be made a condition to be satisfied for continuing product approval. The results of Phase 4 clinical trials can confirm the effectiveness of a product candidate and can provide important safety information. Conversely, the results of Phase 4 clinical trials can raise new safety or effectiveness issues that were not apparent during the original review of the product, which may result in product restrictions or even withdrawal of product approval. In addition, the FDA has express statutory authority to require sponsors to conduct post-marketing studies or clinical trials to specifically address safety issues identified by the agency. If any of our products are subject to these additional postmarketing requirements and commitments, there may be resource and financial implications for our business.

Even if a product candidate receives regulatory approval, the approval will be limited to specific disease states, patient populations and/or dosages, or might contain significant limitations on use in the form of warnings, precautions or contraindications, or in the form of onerous risk management plans, restrictions on distribution, or post-marketing study or trial requirements. Further, even after regulatory approval is obtained, later discovery of previously unknown problems with a product may result in restrictions on the product, requirements to conduct additional studies or trials, or even complete withdrawal of the product from the market. In addition, we cannot predict what adverse governmental regulations may arise from future United States or foreign governmental action.

FDA Post-Approval Requirements

Any products manufactured or distributed by us or on our behalf pursuant to FDA approvals are subject to continuing regulation by the FDA, including requirements for record-keeping, reporting of adverse experiences with the biologic, and submitting biological product deviation reports to notify the FDA of unanticipated changes in distributed products. Manufacturers are required to register their facilities 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 standards. This requires us and our third-party manufacturers to implement certain quality processes, manufacturing controls and documentation requirements in order to ensure that the product is safe, has the identity and strength, and meets the quality, purity and potency characteristics that it purports to have. Certain states also impose requirements on manufacturers and distributors to establish the pedigree of product in the chain of distribution, including some states that require manufacturers and others to adopt new technology capable of tracking and tracing product as it moves through the distribution chain. We cannot be certain that we or our present or future suppliers will be able to comply with the cGMP and other FDA regulatory requirements. If our present or future suppliers are not able to comply with these requirements, the FDA may halt our clinical trials, refuse to approve any BLA or other application, force us to recall a drug from distribution, shut down manufacturing operations or withdraw approval of the BLA for that biologic. Noncompliance with cGMP or other requirements can result in issuance of warning letters, civil and criminal penalties, seizures, and injunctive action.

The FDA and other federal and state agencies closely regulate the labeling, marketing and promotion of drugs. While doctors may prescribe any product approved by the FDA for any use as long as consistent with any REMS restrictions, if applicable, a company can only make claims relating to safety and efficacy of a product that are consistent with FDA approval, and the company is allowed to market a drug only for the particular use and treatment approved by the FDA. In addition, any claims we make relating to our products in advertising or promotion must be appropriately balanced with important safety information and otherwise be adequately substantiated. Failure to comply with these requirements can result in adverse publicity, warning letters, corrective advertising, injunctions, potential civil and criminal penalties, criminal prosecution, and agreements with governmental agencies that materially restrict the manner in which we may promote or distribute drug products. Government regulators, including the Department of Justice and the Office of the Inspector General of the Department of Health and Human Services, as well as state authorities, recently have increased their scrutiny of the promotion and marketing of drugs.

Orphan Drug and Orphan Medicinal Product Designation and Exclusivity

The Orphan Drug Act provides incentives for the development of products intended to treat rare diseases or conditions, which are generally diseases or conditions that affect fewer than 200,000 individuals in the United States. If a sponsor demonstrates that a biologic is intended to treat rare diseases or conditions, the FDA will grant orphan designation for that product. Orphan designation must be requested before submitting a BLA. Under the Pediatric Research Equity Act (Public Law 108-155), submission of a pediatric assessment is not required for pediatric investigation of a product that has been granted orphan drug designation.

The benefits of orphan drug designation include research and development tax credits and exemption from FDA user fees. Orphan designation, however, does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. Generally, if a product that receives orphan designation is approved for the orphan indication, it receives orphan drug exclusivity, which for seven years prohibits the FDA from approving another product with the same active ingredient for the same use. Additionally, if a biologic designated as an orphan product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan drug exclusivity.

Orphan exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same active ingredient for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or provides a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. Further, the FDA may approve more than one product for the same orphan indication or disease as long as the products contain different active ingredients. As a result, even if one of our product candidates receives orphan exclusivity, the FDA can still approve other drugs that have a different active ingredient for use in treating the same indication or disease, which could create a more competitive market for us.

After the FDA grants orphan designation, the identity of the applicant, as well as the name of the therapeutic agent and its designated orphan use, are disclosed publicly by the FDA.

Similarly, the European Commission grants orphan medicinal product designation to products intended for the treatment, prevention or diagnosis of a disease that is life-threatening or chronically debilitating affecting not more than five in 10,000 people. In order to receive orphan designation, there must also be no satisfactory method of diagnosis, prevention or treatment of the condition, or if such a method exists, the medicine must be of significant benefit to those affected by the condition. In addition, sponsors are required to submit to the EMA's Pediatric Committee, or the PDCO, and comply with a pediatric investigation plan, or a PIP, in order to seek marketing authorization in the EU.

Designated orphan medicinal products are entitled to a range of incentives during the development and regulatory review process, including scientific assistance for study protocols, a partial or total reduction in fees and eligibility for conditional marketing authorization. Once authorized, orphan medicinal products are entitled to 10 years of market exclusivity in all EU member states. However, marketing authorization may be granted to a similar medicinal product with the same orphan indication during the 10-year period with the consent of the marketing authorization holder for the original orphan medicinal product or if the manufacturer of the original orphan medicinal product is unable to supply sufficient quantities of such product. Marketing authorization may also be granted to a similar medicinal product with the same orphan indication if the similar product is established to be safer, more effective or otherwise clinically superior to the original orphan medicinal product. After five years, a member state can request that the period of market exclusivity be reduced to six years if it can be demonstrated the criteria for orphan designation no longer apply and the medicine is sufficiently profitable. The period of market exclusivity may be extended by two years for medicines that have also complied with an agreed PIP.

Biologics Price Competition and Innovation Act of 2009

The Biologics Price Competition and Innovation Act of 2009, or BPCIA, created a licensure framework for biosimilars, which could ultimately subject our biological product candidates to competition from biosimilars. Under the BPCIA, a manufacturer may submit an abbreviated application for licensure of a biologic that is "biosimilar to" a referenced branded biologic. This abbreviated approval pathway is intended to permit a biosimilar to come to market more quickly and less expensively than if a "full" BLA were submitted, by relying to some extent on the FDA's previous review and approval of the reference biologic to which the proposed product is similar.

Under the BPCIA, a biosimilar sponsor's ability to seek or obtain approval through the abbreviated pathway is limited by periods of exclusivity granted to the sponsor of the reference product. No biosimilar application may be submitted until four years after the date of approval of the reference product, and no such application, once submitted, may receive final approval until twelve years after that same date (with a potential six-month extension of exclusivity if certain pediatric studies are conducted and the results are reported to the FDA). Once approved, biosimilar products likely would compete with (and in some circumstances may be deemed under the law to be "interchangeable with") the previously approved reference product.

FDA Regulation of Companion Diagnostics

As part of our clinical development plans, we plan to engage third party collaborators to develop companion diagnostics to identify patients most likely to respond to our product candidates. Companion diagnostics are classified as medical devices under the Federal Food, Drug, and Cosmetic Act in the United States. In the United States, the FDA regulates the medical device design and development, preclinical and clinical testing, premarket clearance or approval, registration and listing, manufacturing, labeling, storage, reporting, recordkeeping, advertising and promotion, export and import, sales and distribution, and post-market surveillance of medical devices. Unless an exemption applies, companion diagnostics require marketing clearance or approval from the FDA prior to commercial distribution. The two primary types of FDA marketing authorization applicable to a medical device are premarket notification, also called 510(k) clearance, and premarket approval, or PMA. According to a 2014 guidance issued by FDA officials, the use of companion diagnostics with therapeutic products raises important concerns about the safety and effectiveness of both the companion diagnostic devices and the corresponding therapeutic products and, therefore, ordinarily will require a PMA before they are marketed. Some companion diagnostics, however, could potentially be cleared through 510(k) clearance.

To obtain 510(k) clearance, a manufacturer must submit a pre-market notification demonstrating that the proposed device is "substantially equivalent" to a "predicate device," which is a previously 510(k) cleared Class I or Class II device, a pre-amendment Class III device for which the FDA has not yet called for PMA applications or a device that was in commercial distribution before May 28, 1976. To demonstrate substantial equivalence, the applicant must show that the device has the same intended use and the same technological characteristics as the predicate, or if the device has different technological characteristics than the predicate, the device does not raise new questions of safety and effectiveness, and is at least as safe and effective as the predicate. The FDA's 510(k) clearance pathway usually takes from four to twelve months, but it can last longer. After a device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, requires either a new 510(k) clearance or a PMA.

A product not eligible for 510(k) clearance must follow the PMA pathway, which requires proof that there is a reasonable assurance to the FDA's satisfaction of a device's safety and efficacy and its intended use with a corresponding therapeutic product. Because the diagnostic tests that we plan to develop are essential for the safety and effective use of our therapeutics in selected patients, these diagnostic tests would be subject to the PMA approval process

The PMA process is costly, lengthy and uncertain. PMA applications must be supported by valid scientific evidence, which typically requires extensive data, including technical, preclinical, clinical and manufacturing data, to demonstrate to the FDA's satisfaction the safety and effectiveness of the device. For companion diagnostic tests, a PMA application typically includes data regarding analytical and clinical validation studies. As part of its review of the PMA, the FDA will conduct a pre-approval inspection of the manufacturing facility or facilities to ensure compliance with the Quality System Regulation, or QSR, which requires manufacturers to follow design, testing, control, documentation and other quality assurance procedures. FDA review of an initial PMA application is required by statute to take between six to ten months. If the FDA evaluations of both the PMA application and the manufacturing facilities are favorable, the FDA will either issue an approval letter or an approvable letter, which usually contains a number of conditions that must be met in order to secure final approval of the PMA. If the FDA's evaluation of the PMA or manufacturing facilities is not favorable, the FDA will deny approval of the PMA or issue a not approvable letter. A not approvable letter will outline the deficiencies in the application, and where practical, will identify what is necessary to secure approval of the PMA. The FDA may also determine that additional clinical trials are necessary, in which case the PMA may be delayed for several months or years while the trials are conducted and the data then submitted in an amendment to the PMA. Once granted, a PMA may be withdrawn by the FDA if compliance with post-approval requirements, conditions of approval or other regulatory standards are not maintained or problems are identified following initial marketing.

We and any third-party collaborator who we engage to develop companion diagnostics will work cooperatively to generate the data required for submission with the PMA application, and will remain in contact with the Center for Devices and Radiological Health, or CDRH, at the FDA to ensure that any changes in requirements are incorporated into the development plans. We anticipate that meetings with the FDA with regard to our drug product candidates, as well as companion diagnostic product candidates, will include representatives from the Center for Drug Evaluation and Research, or the CDER, and CDRH to ensure that the BLA and PMA submissions are coordinated to enable the FDA to conduct a parallel review of both submissions. The 2014 guidance issued by the FDA addresses issues critical to developing companion diagnostics, such as biomarker qualification, establishing clinical validity, the use of retrospective data, the appropriate patient population and when the FDA will require that the device and the drug be approved simultaneously. According to the draft guidance, if safe and effective use of a therapeutic product depends on a diagnostic, then the FDA generally will require approval or clearance of the diagnostic at the same time that the FDA approves the therapeutic product. We plan to structure our programs for the development of our companion diagnostics to be consistent with this guidance.

In the European Economic Area, or the EEA, *in vitro* medical devices are required to conform with the essential requirements of the E.U. Directive on *in vitro* diagnostic medical devices (Directive No 98/79/EC, as amended). To demonstrate compliance with these essential requirements, the manufacturer must undergo a conformity assessment procedure. The conformity assessment varies according to the type of medical device and its classification. For low-risk devices, the conformity assessment can be carried out internally, but for higher risk devices it requires the intervention of an accredited EEA Notified Body. If successful, the conformity assessment concludes with the drawing up by the manufacturer of an EC Declaration of Conformity entitling the manufacturer to affix the CE mark to its products and to sell them throughout the EEA. We expect our companion diagnostic will require a conformity assessment through an accredited EEA Notified Body, and that the data generated for the U.S. registration will be sufficient to satisfy the regulatory requirements for the European Union and other countries.

Coverage and Reimbursement

In both domestic and foreign markets, sales of any products for which we may receive regulatory approval will depend in part upon the availability of coverage and reimbursement from third-party payors. Such third-party payors include government health programs, such as Medicare and Medicaid, private health insurers and managed care providers, and other organizations. Coverage decisions may depend upon clinical and economic standards that disfavor new drug products when more established or lower cost therapeutic alternatives are already available or subsequently become available. Assuming coverage is granted, the reimbursement rates paid for covered products might not be adequate. Even if favorable coverage status and adequate reimbursement rates are attained, less favorable coverage policies and reimbursement rates may be implemented in the future. The marketability of any products for which we may receive regulatory approval for commercial sale may suffer if the government and other third-party payors fail to provide coverage and adequate reimbursement to allow us to sell such products on a competitive and profitable basis. For example, under these circumstances, physicians may limit how much or under what circumstances they will prescribe or administer our products and patients may decline to purchase such products. This, in turn, could affect our ability to successfully commercialize our products and impact our profitability, results of operations, financial condition, and future success.

The market for any product candidates for which we may receive regulatory approval will depend significantly on the degree to which these products are listed on third-party payors' drug formularies, or lists of medications for which third-party payors provide coverage and reimbursement. The industry competition to be included on such formularies often leads to downward pricing pressures on pharmaceutical companies. Also, third-party payors may refuse to include a particular branded drug on their formularies or otherwise restrict patient access to a branded drug when a less costly generic equivalent or other alternative is available. In addition, because each third-party payor may individually establish coverage and reimbursement policies, obtaining coverage and adequate reimbursement can be a time-consuming and costly process. We may be required to provide scientific and clinical support for the use of any product to each third-party payor separately with no assurance that approval would be obtained, and we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the cost-effectiveness of our products. We cannot be certain that our product candidates will be considered cost-effective. This process could delay the market acceptance of any product candidates for which we may receive approval and could have a negative effect on our future revenues and operating results.

Anti-Kickback, False Claims and Physician Payment Sunshine Laws

In addition to FDA restrictions on marketing, several other types of U.S. state and federal laws are relevant to certain marketing practices in the pharmaceutical and medical device industries and their other interactions with health care providers. These laws include the Federal Anti-Kickback Statute, false claims statutes, and the Federal Physician Payment Sunshine Act. We are subject to these laws and they may affect our business. The Federal Anti-Kickback Statute prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, lease, order or recommendation of, any good or service for which payment may be made under federal health care programs such as the Medicare and Medicaid programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Violations of the Federal Anti-Kickback Statute are punishable by imprisonment, criminal fines, civil monetary penalties and exclusion from participation in federal healthcare programs. The Federal Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 and subsequent legislation, or collectively, the Affordable Care Act, among other things, amends the intent requirement of the Federal Anti-Kickback Statute. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the Affordable Care Act provides that 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. There are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions; however, the exceptions and safe harbors are drawn narrowly, and practices that do not fit squarely within an exception or safe harbor may be subject to scrutiny.

The Federal False Claims Act prohibits, among other things, any person from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment, or knowingly making, or causing to be made, a false record or statement material to a false or fraudulent claim. Many pharmaceutical and other healthcare companies have faced investigations and private lawsuits and, in many cases, have agreed to significant and burdensome settlements under these laws for a variety of allegedly improper promotional and marketing activities, including inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates; providing free product to customers with the expectation that the customers would bill federal programs for the product; providing consulting fees and other benefits to physicians to induce them to prescribe products; or engaging in promotion for "off-label" uses. Federal False Claims Act violations may result in significant civil monetary penalties, including three times the damages incurred by the government from the violation. The majority of U.S. states also have statutes or regulations similar to the Federal Anti-Kickback Statute and False Claims Act, which apply to items and services reimbursed under Medicaid and other state programs, and in some states apply regardless of the payor.

The federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, and its implementing regulations, or HIPAA, imposes criminal liability for knowingly and willfully executing a scheme to defraud any healthcare benefit program, knowingly and willfully embezzling or stealing from a health care benefit program, willfully obstructing a criminal investigation of a health care offense, or knowingly and willfully making false statements relating to healthcare matters.

The federal Physician Payment Sunshine Act, being implemented as the Open Payments Program, requires certain manufacturers of products for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program to track payments and other transfers of value to physicians and teaching hospitals, as well as physician ownership and investment interests, and to publicly report such data. Manufacturers subject to the Open Payments Program must submit a report on or before the 90th day of each calendar year disclosing reportable payments made in the previous calendar year. Failure to comply with the reporting obligations may result in civil monetary penalties.

Several states now require pharmaceutical companies to report expenses relating to the marketing and promotion of pharmaceutical products in those states and to report gifts and payments to individual health care providers in those states. Some of these states also prohibit certain marketing related activities including the provision of gifts, meals, or other items to certain health care providers. In addition, some states require pharmaceutical companies to implement compliance programs or marketing codes.

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations are found to be in violation of any of the federal or state laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including significant criminal and civil monetary penalties, damages, fines, imprisonment, exclusion from participation in government programs, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, private "qui tam" actions brought by individual whistleblowers in the name of the government, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

To the extent that any of our products 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 transfers of value to healthcare professionals.

Healthcare Reform

The United States and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our product candidates profitably, even if they are approved for sale. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical and medical device industries have been a particular focus of these efforts and have been significantly affected by major legislative initiatives.

In March 2010, the Affordable Care Act was enacted, which includes measures that have or will significantly change the way health care is financed by both governmental and private insurers.

In January 2017, Congress voted to adopt a budget resolution for fiscal year 2017, or the Budget Resolution, that authorizes the implementation of legislation that would repeal portions of the Affordable Care Act. Further, on January 20, 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the Affordable Care Act to waive, defer, grant exemptions from, or delay the implementation of any provision of the Affordable Care Act that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. Congress also could consider subsequent legislation to replace elements of the Affordable Care Act that are repealed. We expect that healthcare reform measures that may be adopted in the future may result in more rigorous coverage criteria and lower reimbursement, and in additional downward pressure on the price that may be charged for any of our product candidates, if approved.

Foreign Regulation

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our product candidates. Whether or not we obtain FDA approval for a product candidate, we must obtain approval from the comparable regulatory authorities of foreign countries or economic areas, such as the European Union, before we may commence clinical trials or market products in those countries or areas. The approval process and requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from place to place, and the time may be longer or shorter than that required for FDA approval.

Other Regulations

We are also subject to numerous federal, state and local laws relating to such matters as safe working conditions, manufacturing practices, environmental protection, fire hazard control, and disposal of hazardous or potentially hazardous substances. We may incur significant costs to comply with such laws and regulations now or in the future.

Corporate Information and Employees

Our principal corporate offices are located at Two Corporate Drive, South San Francisco, California 94080 and our telephone number is (415) 365-5600. We were incorporated in December 2001 in Delaware and completed our initial public offering, or IPO, in September 2013. As of December 31, 2016, we had 195 full-time employees and no part-time employees. Of these employees, 154 were primarily engaged in research and development activities and 62 have an M.D. or a Ph.D. degree.

Available Information

Our website address is www.fiveprime.com. We make available on our website, free of charge, our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission, or the SEC. Further, a copy of this Annual Report on Form 10-K is located at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D. C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. The SEC maintains a website that contains reports, proxy and information statements and other information regarding our filings at www.sec.gov. The information found on our website is not incorporated by reference into this Annual Report on Form 10-K or any other report we file with or furnish to the SEC.

Item 1A. Risk Factors

This Annual Report on Form 10-K contains forward-looking information based on our current expectations. Because our business is subject to many risks and our actual results may differ materially from any forward-looking statements made by or on behalf of us, this section includes a discussion of important factors that could affect our business, operating results, financial condition and the trading price of our common stock. You should carefully consider these risk factors, together with all of the other information included in this Annual Report on Form 10-K as well as our other publicly available filings with the SEC.

Risks Related to Our Financial Position and Capital Needs

We expect to incur net losses for the foreseeable future.

We are a clinical-stage biotechnology company with a limited operating history. Investment in biopharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate effect or an acceptable safety profile, gain regulatory approval and become commercially viable. We have no products approved for commercial sale and have not generated any revenue from product sales to date and we continue to incur significant research and development and other expenses related to our ongoing operations. As a result, we are not profitable and have incurred losses in each period since our inception in 2001, with the exception of the fiscal year ended December 31, 2015, due primarily to the $350.0 million upfront payment we received from Bristol-Myers Squibb Company, or BMS, from our license and collaboration agreement for cabiralizumab, and the fiscal year ended December 31, 2011, due primarily to the $50.0 million upfront payment we received from GlaxoSmithKline, or GSK, from our license and collaboration agreement for FP-1039. For the fiscal year ended December 31, 2016, we reported a net loss of $65.7 million.

Although we may from time to time report profitable results, we generally expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. The net losses we incur may fluctuate significantly from quarter to quarter. We expect our operating expenses to increase as we continue our research and development of, and seek regulatory approvals for, our product candidates. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenues. Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' equity and working capital.

We currently have no source of product revenue and may never become consistently profitable.

To date, we have not generated any revenue from commercialization of our product candidates. Our ability to generate product revenue and ultimately become profitable depends upon our ability, alone or with our partners, to successfully commercialize products, including any of our current product candidates or other product candidates that we may develop, in-license or acquire in the future. We do not anticipate generating revenue from the sale of products for the foreseeable future. Our ability to generate future product revenue from our current or future product candidates also depends on a number of additional factors, including our or our partners' ability to:

- successfully complete research and clinical development of current and future product candidates;
- establish and maintain supply and manufacturing relationships with third parties to ensure adequate, timely and compliant manufacturing of bulk drug substances and drug products to maintain that supply;
- launch and commercialize future product candidates for which we obtain marketing approval, if any, and if launched independently, successfully establish a sales force, marketing and distribution infrastructure;
- obtain coverage and adequate product reimbursement from third-party payors, including government payors;

- successfully develop, validate and obtain any necessary regulatory approvals of companion diagnostics to our product candidates on a timely basis;
- achieve market acceptance for our or our partners' products, if any;
- acquire rights to and otherwise establish, maintain and protect intellectual property necessary to develop and commercialize our product candidates; and
- attract, hire and retain qualified personnel.

In addition, because of the numerous risks and uncertainties associated with pharmaceutical product development, including that our product candidates may not advance through development or achieve the endpoints of applicable clinical trials, we are unable to predict the timing or amount of increased expenses, or if or when we will achieve or maintain profitability. In addition, our expenses could increase beyond expectations if we decide to or are required by the U.S. Food and Drug Administration, or FDA, or foreign regulatory authorities to perform studies or trials in addition to those that we currently anticipate. Even if we complete the development and regulatory processes described above, we anticipate incurring significant costs associated with launching and commercializing these products.

Even if we generate revenue from the sale of any of our products that may be approved, we may not become profitable and may need to obtain additional funding to continue operations. If we fail to become profitable or do not sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce our operations.

We will require additional capital to finance our operations, which may not be available to us on acceptable terms or at all. As a result, we may not complete the development and commercialization of our product candidates or develop new product candidates.

As a research and development company, our operations have consumed substantial amounts of cash since inception. Although we have sufficient cash and cash equivalents to fund our projected operating expenses and capital expenditure requirements for at least the next 12 months, we expect our research and development expenses to increase substantially in connection with our ongoing activities, particularly as we advance our product candidates further into clinical development, advance additional product candidates into clinical trials and increase the number and size of our clinical trials. In addition, circumstances may cause us to consume capital more rapidly than we currently anticipate. For example, as we move our product candidates through preclinical studies and into clinical development, we may have adverse results requiring us to acquire or develop new product candidates, or our product collaboration partners may not elect to pursue the development and commercialization of any of our product candidates that are subject to their respective agreements with us. Any of these events may increase our development costs more than we expect. We may need to raise additional funds or otherwise obtain funding through product collaborations if we choose to initiate additional clinical trials for product candidates other than programs currently partnered. In any event, we will require additional capital to obtain regulatory approval for, and to commercialize, future product candidates.

If we need to secure additional financing, such additional fundraising efforts may divert our management from our day-to-day activities, which may adversely affect our ability to develop and commercialize future product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. If we do not raise additional capital when required or on acceptable terms, we may need to:

- significantly delay, scale back or discontinue the development or commercialization of any product candidates or cease operations altogether;
- seek strategic alliances for research and development programs at an earlier stage than we would otherwise desire or on terms less favorable than might otherwise be available; or
- relinquish or license on unfavorable terms our rights to technologies or any future product candidates that we otherwise would seek to develop or commercialize ourselves.

If we need to conduct additional fundraising activities and we do not raise additional capital in sufficient amounts or on terms acceptable to us, we may be prevented from pursuing development and commercialization efforts, which could have a material adverse effect on our business, operating results and prospects.

Our forecast of the period of time through which our financial resources will adequately support our operations could vary as a result of a number of factors, including the factors discussed elsewhere in this "Risk Factors" section. Our future funding requirements, both short and long-term, will depend on many factors, including:

- the initiation, progress, timing, costs and results of preclinical and clinical studies for our product candidates and future product candidates we may develop;
- the outcome, timing and cost of seeking and obtaining regulatory approvals from the FDA and comparable foreign regulatory authorities, including the potential for such authorities to require that we perform more studies than those that we currently expect;
- the cost to establish, maintain, expand and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make, or that we may receive, in connection with licensing, preparing, filing, prosecuting, maintaining, defending and enforcing any patents or other intellectual property rights;
- the effect of competing technological and market developments;
- market acceptance of any approved product candidates;
- the costs of acquiring, licensing or investing in additional businesses, products, product candidates and technologies;
- the cost and timing of selecting, auditing and potentially validating a manufacturing site for commercial-scale manufacturing; and
- the cost of establishing sales, marketing and distribution capabilities for our product candidates for which we may receive regulatory approval and that we determine to commercialize ourselves or in collaboration with our partners.

If a lack of available capital means that we cannot expand our operations or otherwise capitalize on our business opportunities, our business, financial condition and results of operations could be materially adversely affected.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies.

Until we can generate a sufficient amount of revenue from our products, if ever, we expect to finance future cash needs through public or private equity or debt offerings. Additional capital may not be available on reasonable terms, if at all. Raising additional funds through the issuance of additional debt or equity securities could result in dilution to our existing stockholders and/or increased fixed payment obligations. Furthermore, these securities may have rights senior to those of our common stock and could contain covenants that would restrict our operations and potentially impair our competitiveness, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Any of these events could significantly harm our business, financial condition and prospects.

Risks Related to Our Business and Industry

We may not advance additional product candidates into clinical development or identify or validate additional drug targets. If we do not advance additional product candidates into clinical development or identify or validate additional drug targets, or if we experience significant delays in doing any of the foregoing, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the identification and validation of new targets for protein therapeutics and the identification and preclinical development of product candidates to these targets. We have three clinical-stage product candidates, cabiralizumab, FPA144 and FP-1039. Our ability to generate product revenues, which we do not expect will occur for many years, if ever, will depend heavily on our ability to identify and validate new targets and identify and advance preclinical product candidates into and through clinical development. The outcome of preclinical studies of our product candidates may not predict the success of clinical trials. Moreover, preclinical data are often susceptible to varying interpretations and analyses and many companies that have believed their product candidates performed satisfactorily in preclinical studies have nonetheless failed in clinical development. Our inability to successfully complete preclinical development of our product candidates could result in additional costs to us or impair our ability to generate product revenues or development, regulatory, commercialization and sales milestone payments and royalties on product sales.

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

Before obtaining marketing approval from regulatory authorities for the sale of future product candidates, we or our partners must conduct extensive clinical trials to demonstrate the safety and efficacy of the product candidates in humans. Clinical testing is expensive and difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical studies and early clinical trials may not predict the success of later clinical trials and interim results of a clinical trial do not necessarily predict final results. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials due to lack of efficacy or unacceptable safety profiles, notwithstanding promising results in earlier trials. Despite the results reported from our clinical trials and preclinical studies for our product candidates, we do not know whether the clinical trials we or our partners may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market any of our product candidates in any particular jurisdiction or jurisdictions. If later-stage clinical trials do not produce favorable results, our or our partners' ability to achieve regulatory approval for any of our product candidates may be adversely impacted.

Delays in clinical testing will delay the commercialization of our product candidates, potentially increase our costs and harm our business.

We do not know whether any clinical trials will begin as planned, will need to be amended or restructured or will be completed on schedule, or at all. Our product development costs will increase if we experience delays in clinical testing. Significant clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do, which would impair our ability to successfully commercialize our product candidates and may harm our business, results of operations and prospects. Events which may result in a delay or unsuccessful completion of clinical development include:

- delays in reaching an agreement with or failure in obtaining authorization from the FDA or other regulatory authorities and institutional review boards, or IRBs;
- imposition of a clinical hold following an inspection of our manufacturing or clinical trial operations or trial sites by the FDA or other regulatory authorities, or a decision by the FDA, other regulatory authorities, IRBs or us, or recommendation by a data safety monitoring board, to suspend or terminate clinical trials at any time for safety issues or for any other reason;

- delays in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites;
- deviations from the trial protocol by clinical trial sites and investigators or failure to conduct the trial in accordance with regulatory requirements;
- failure of third parties, such as CROs, to satisfy their contractual duties or meet expected deadlines;
- delays in the testing, validation, and manufacturing of product candidates and in the delivery of these product candidates to clinical sites;
- for clinical trials in selected patient populations, delays in identification and auditing of central or other laboratories and the transfer and validation of assays or tests used to identify selected patients;
- delays in having patients complete participation in a trial or return for post-treatment follow-up;
- delays caused by patients dropping out of a trial due to side effects, disease progression or other reasons;
- withdrawal of clinical trial sites from our clinical trials as a result of changing standards of care or the ineligibility of a site to participate in our clinical trials; or
- changes in government regulations or administrative actions or lack of adequate funding to continue the clinical trials.

Any inability of us or our partners to timely complete clinical development could result in additional costs to us or impair our ability to generate product revenue or to achieve development, regulatory, commercialization or sales milestone.

If we or our partners are unable to timely enroll patients in clinical trials, we will be unable to complete these trials on a timely basis.

The timely completion of clinical trials largely depends on the rate of patient enrollment. Many factors affect the rate of patient enrollment, including:

- the size and nature of the patient population;
- the number and location of clinical sites;
- competition with other companies for clinical sites or patients;
- the eligibility and exclusion criteria for the trial;
- the design of the clinical trial;
- inability to obtain and maintain patient consents;
- the availability of supplies of drug product for clinical use;
- risk that enrolled subjects will drop out before completion; and
- competing clinical trials and clinicians' and patients' perceptions as to the potential advantages of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating.

For example, we are conducting a Phase 2 clinical trial of cabiralizumab in patients with diffuse PVNS. Very little data regarding the incidence and prevalence of diffuse PVNS exist and recent published data suggest that the prevalence of diffuse PVNS in the United States may be approximately 25,000 patients. We expect that the limited size of the diffuse PVNS patient population will limit patient enrollment rates. Also, we know that Daiichi Sankyo, Inc. (Plexxikon Inc.) has completed its enrollment of a Phase 3 clinical trial (ENLIVEN) of pexidartinib (PLX3397) in PVNS, Novartis AG is enrolling patients in its Phase 2 clinical trial of its MCS110 CSF1 monoclonal antibody in PVNS, and Roche has clinically tested its RG7155 antibody in PVNS patients. If Novartis AG or F. Hoffmann-La Roche AG, or Roche, continue the clinical development of their products in PVNS, we would potentially compete with them for the enrollment in this rare patient population, which may adversely impact the rate of patient enrollment in and the timely completion of our Phase 2 clinical trial of cabiralizumab in PVNS. If Daiichi Sankyo should gain approval in any region where we are conducting clinical trials of cabiralizumab in PVNS, it may impact our ability to enroll and timely complete those trials.

Additionally, although we believe selecting patients who overexpress FGFR2b using a companion diagnostic should increase the probability of success in our clinical trial of FPA144 in gastric cancer, this selection criteria limits the number of patients eligible for enrollment.

There is significant competition for recruiting patients in the clinical trials we and our partners are conducting and plan to conduct, and we or our partners may be unable to timely enroll the patients necessary to complete clinical trials on a timely basis or at all.

We may not successfully identify, test, develop or commercialize potential product candidates, which may force us to abandon our development efforts for a program or programs.

The success of our business depends primarily upon our ability to identify and validate new protein therapeutic targets, including through the use of our discovery platform, and identify, test, develop and commercialize protein therapeutics, which we may develop ourselves or in-license from others. Our research efforts may initially show promise in discovering potential new protein therapeutic targets or candidates, yet fail to yield product candidates for clinical development for a number of reasons, including:

- our research methodology, including our screening technology, may not successfully identify medically relevant protein therapeutic targets or potential product candidates;
- we tend to identify and select from our discovery platform novel, untested targets that may be challenging to validate because of the novelty of the target or that we may fail to validate at all after further research work;
- we may need to rely on third parties to generate antibody candidates for our product candidate programs;
- we may encounter product manufacturing difficulties that limit yield or produce undesirable characteristics that increase the cost of goods, cause delays or make the product candidates unmarketable;
- our product candidates may cause adverse effects in patients or subjects, even after successful initial toxicology studies, which may make the product candidates unmarketable;
- our product candidates may not demonstrate a meaningful benefit to patients or subjects; and
- our collaboration partners may change their development profiles or plans for potential product candidates or abandon a therapeutic area or the development of a partnered product.

The occurrence of any of these events may force us to abandon our development efforts for a program or programs, which would have a material adverse effect on our business, operating results and prospects and could potentially cause us to cease operations. Research programs to identify new product targets and candidates require substantial technical, financial and human resources. We may focus our efforts and resources on potential discovery efforts, programs or product candidates that ultimately prove to be unsuccessful.

We are subject to a multitude of manufacturing risks, any of which could substantially increase our costs and limit supply of our products.

The process of manufacturing our products is complex and subject to several risks, including the following:

- The process of manufacturing biologics is susceptible to product loss due to contamination, equipment failure or improper installation or operation of equipment, or vendor or operator error. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered in our products or in the manufacturing facilities in which our products are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination.
- The manufacturing facilities in which our products are made could be adversely affected by equipment failures, labor and raw material shortages, natural disasters, power failures and numerous other factors.
- Any adverse developments affecting manufacturing operations for our products may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls, or other interruptions in the supply of our products. We may also have to take inventory write-offs and incur other charges and expenses for products that fail to meet specifications, or because we must undertake costly remediation efforts or seek costlier manufacturing alternatives.

Certain raw materials necessary for the manufacture of our products, such as growth media, resins and filters, are sourced from a single supplier. We do not have agreements in place that guarantee our supply or the price of these raw materials. Any significant delay in the acquisition or decrease in the availability of these raw materials could considerably delay the manufacture of our product candidates, which could adversely impact the timing of any planned trials or the regulatory approval of that product candidate.

We depend on third-party manufacturers for the manufacture of drug substance and drug product for clinical trials and on additional third parties for our supply chain. Any problems we experience with any of these third parties could delay the manufacturing of our product candidates, which could harm our results of operations.

We have process development and small-scale manufacturing capabilities. We do not have and we do not currently plan to acquire or develop the facilities or capabilities to manufacture bulk drug substance or filled drug product for use in human clinical trials or commercialization. In the past we have and we expect in the future to engage third parties for the manufacture of bulk drug substance and drug product for our products for our clinical trials.

For example, BMS has the exclusive right to manufacture cabiralizumab. Under our cabiralizumab collaboration agreement with BMS, BMS will supply us with cabiralizumab, at its cost and expense, for our use in the conduct of our clinical trial evaluating cabiralizumab in combination with *Opdivo* in multiple tumor types and our Phase 2 clinical trial of cabiralizumab in patients with PVNS and will supply us with cabiralizumab for our conduct of our independent development activities with respect to cabiralizumab in exchange for a service fee .

We have not contracted with alternate suppliers in the event the current organizations we utilize are unable to scale production or if we otherwise experience any problems with them. If we are unable to arrange for alternative third-party manufacturing sources, or to do so on commercially reasonable terms or in a timely manner, we may be delayed in the development of our product candidates.

Our reliance on third-party manufacturers subjects us to risks to which we would not be subject if we manufactured product candidates or products ourselves, including failure of the third party to abide by regulatory and quality assurance requirements, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control (including the third party's failure to manufacture our product candidates or any products we may eventually commercialize in accordance with our specifications) and the possibility of termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or damaging to our business.

The regulatory approval processes of the FDA and comparable foreign regulatory authorities are lengthy, time-consuming and inherently unpredictable. Our inability to obtain regulatory approval for our product candidates would substantially harm our business.

The time required to obtain approval by the FDA and comparable foreign regulatory authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any product candidate and it is possible that none of our existing product candidates or any future product candidates will ever obtain regulatory approval.

Our product candidates could fail to receive regulatory approval from the FDA or a comparable foreign regulatory authority for many reasons, including:

- disagreement with the design or implementation of our clinical trials;
- failure to demonstrate that a product candidate is safe and effective for its proposed indication;
- failure of clinical trials to meet the level of statistical significance required for approval;
- failure to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- disagreement with our interpretation of data from preclinical studies or clinical trials;
- the insufficiency of data collected from clinical trials of our product candidates to support the submission and filing of a Biologic License Application or other submission or to obtain regulatory approval;
- failure to obtain approval of the manufacturing processes or facilities of third-party manufacturers with whom we contract for clinical and commercial supplies; or
- changes in the approval policies or regulations that render our preclinical and clinical data insufficient for approval.

The FDA or a comparable foreign regulatory authority may require more information to support approval, including additional preclinical or clinical data, which may delay or prevent approval and our commercialization plans, or we may decide to abandon the development program. If we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate.

Our product candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following any marketing approval.

Undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authority or otherwise limit the commercial potential of any such product. Results of our trials could reveal a high and unacceptable severity and prevalence of side effects or unexpected characteristics. In such an event, we could suspend or terminate our trials or the FDA or comparable foreign regulatory authorities could order us to cease clinical trials 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 subjects to complete the trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly.

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

- we may suspend marketing of, or withdraw or recall, such product;
- regulatory authorities may withdraw approvals of such product;
- regulatory authorities may require additional warnings on the label;
- the FDA or other regulatory bodies may issue safety alerts, Dear Healthcare Provider letters, press releases or other communications containing warnings about such product;
- the FDA may require the establishment or modification of a risk evaluation and mitigation strategy, or REMS, or a comparable foreign regulatory authority may require the establishment or modification of a similar strategy that may, for instance, restrict distribution of our products and impose burdensome implementation requirements on us;
- regulatory authorities may require that we conduct post-marketing studies;
- we could be sued and held liable for harm caused to subjects or patients; and
- our reputation may suffer.

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

If we are unable to successfully develop a companion diagnostic for FPA144, or experience significant delays in doing so, we may not achieve marketing approval or realize the full commercial potential of FPA144.

We plan to develop a companion diagnostic for FPA144. We expect that the FDA and comparable foreign regulatory authorities may require the development and regulatory approval of a companion diagnostic as a condition to approving FPA144 for use in patients that overexpress FGFR2b protein. We are initially seeking to develop FPA144 to treat a subset of gastric (stomach) cancer patients whose tumors overexpress the FGFR2b protein, as determined by an IHC diagnostic test. We plan to develop a companion diagnostic with a third party collaborator to help us to more accurately identify these gastric cancer patients, both during our clinical trials and in connection with the commercialization of FPA144.

We do not have experience or capabilities in developing or commercializing diagnostics and will be dependent in large part on the sustained cooperation and effort of our third party collaborator to perform these functions.

Companion diagnostics are subject to regulation by the FDA and comparable foreign regulatory authorities as medical devices and may require separate regulatory approval prior to commercialization.

If we or our third party collaborator are unable to successfully develop a companion diagnostic for FPA144 or experience delays in doing so:

- the development of FPA144 may be adversely affected because we may be unable to appropriately select patients for enrollment in our clinical trials;
- FPA144 may not receive marketing approval if its safe and effective use depends on use of a companion diagnostic; and
- we may not realize the full commercial potential of FPA144 if, among other reasons, we are unable to appropriately identify patients with FGFR2b protein overexpression.

If any of these events were to occur, our business would be harmed, possibly materially.

Even if our product candidates receive regulatory approval, they may still face future development and regulatory difficulties, which may inhibit our ability to commercialize our products and generate revenue.

Even if we obtain regulatory approval for a product candidate, it would be subject to ongoing requirements by the FDA and comparable foreign regulatory authorities governing the manufacture, quality control, further development, labeling, packaging, storage, distribution, safety surveillance, import, export, advertising, promotion, recordkeeping and reporting of safety and other post-market information. The FDA and comparable foreign regulatory authorities will continue to closely monitor the safety profile of any product even after approval. If the FDA or comparable foreign regulatory authorities become aware of new safety information after approval of any of our product candidates, they may require labeling changes or establishment of a REMS or similar strategy, impose significant restrictions on a product's indicated uses or marketing, or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance.

In addition, manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current Good Manufacturing Practices, or cGMP, regulations and standards. If we or a regulatory agency discover 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 requiring recall or withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters or untitled letters;
- mandate modifications to promotional materials or require us to provide corrective information to healthcare practitioners;
- require us to enter into a consent decree, which can include imposition of various fines, reimbursements for inspection costs, required due dates for specific actions and penalties for noncompliance;
- seek an injunction or other court actions to impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical studies;
- refuse to approve pending applications or supplements to 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 products, or require us to initiate a product recall.

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

Advertising and promotion of any product candidate that obtains approval in the United States will be heavily scrutinized by the FDA, the Department of Justice, the Department of Health and Human Services' Office of Inspector General, state attorneys general, members of Congress and the public. Violations, including promotion of our products for unapproved (or off-label) uses, are subject to enforcement letters, inquiries and investigations and civil and criminal sanctions by the government. Additionally, comparable foreign regulatory authorities will heavily scrutinize advertising and promotion of any product candidate that obtains approval outside of the United States.

In the United States, engaging in the impermissible promotion of our products for off-label uses can also subject us to false claims litigation under federal and state statutes, which can lead to civil and criminal penalties and fines and agreements that materially restrict the manner in which a company promotes or distributes drug products. These false claims statutes include the federal False Claims Act, which allows any individual to bring a lawsuit against a pharmaceutical company on behalf of the federal government alleging submission of false or fraudulent claims or causing another entity or individual to present such false or fraudulent claims for payment by a federal program such as Medicare or Medicaid. If the government prevails in the lawsuit, the individual will share in any fines or settlement funds. Since 2004, these False Claims Act lawsuits against pharmaceutical companies have increased significantly in volume and breadth, leading to several substantial civil and criminal settlements regarding certain sales practices promoting off-label drug uses involving fines in excess of $1.0 billion. This growth in litigation has increased the risk that a pharmaceutical company will have to defend a false claim action, pay settlement fines or restitution, agree to comply with burdensome reporting and compliance obligations and be excluded from Medicare, Medicaid and other federal and state healthcare programs. If we do not lawfully promote our approved products, we may become subject to such litigation and, if we do not successfully defend against such actions, those actions may have a material adverse effect on our business, financial condition and results of operations.

The FDA's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, which would adversely affect our business, prospects and ability to achieve or sustain profitability.

Our failure to obtain regulatory approval in international jurisdictions would prevent us from marketing our product candidates outside the United States.

In order to market and sell our products in other jurisdictions, we must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, we must secure product reimbursement approvals before regulatory authorities will approve the product for sale in that country. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. We may not obtain foreign regulatory approvals on a timely basis, if at all. Further, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country or by one regulatory authority outside the United States does not ensure approval by regulatory authorities in any other country or jurisdiction or by the FDA, while a failure or delay in obtaining regulatory approval for any of our product candidates in one country may have a negative effect on the regulatory approval process in others and may significantly diminish the commercial prospects of that product candidate, and our business prospects could decline. Also, regulatory approval for any of our product candidates may be withdrawn. If we fail to comply with the regulatory requirements in international markets and receive applicable marketing approvals, our target market will be reduced, our ability to realize the full market potential of our product candidates will be harmed and our business will be adversely affected.

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

The biotechnology industry is intensely competitive and subject to rapid and significant technological change. We face competition with respect to our current product candidates and will face competition with respect to any future product candidates from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. Many of our competitors have significantly greater financial, technical and human resources. Smaller and early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

Our competitors may obtain regulatory approval of their products more rapidly than we may or may obtain patent protection or other intellectual property rights that limit our ability to develop or commercialize our product candidates. Our competitors may also develop drugs that are more effective, more convenient, more widely used and less costly or have better safety profiles than our products and these competitors may also be more successful than us in manufacturing and marketing their products.

Our competitors will also compete with us in recruiting and retaining qualified scientific, management and commercial personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Although there are no approved therapies that specifically target the signaling pathways our product candidates are designed to modulate or inhibit, there are numerous currently approved therapies for treating the same diseases or indications for which our product candidates may be useful and many of these currently approved therapies act through mechanisms similar to our product candidates. Many of these approved drugs are well-established therapies or products and are widely accepted by physicians, patients and third-party payors. Some of these drugs are branded and subject to patent protection and others are available on a generic basis. Insurers and other third-party payors may also encourage the use of generic products or specific branded products. We expect that if our product candidates are approved, they will be priced at a significant premium over competitive generic, including branded generic, products. This may make it difficult for us to differentiate our products from currently approved therapies, which may adversely impact our business strategy. In addition, many companies are developing new therapeutics and we cannot predict what the standard of care will be as our product candidates progress through clinical development.

If cabiralizumab were approved for the treatment of cancer or PVNS, it could face competition from products currently in development as single agents and/or in combination with anti-PD1/PD-L1 agents, including Roche's emactuzumab (RO5509554, RG7155) anti-CSF1R antibody, Lilly's IMC-CS4/LY3022855 anti-CSF1R antibody, Amgen's AMG 820 anti-CSF1R antibody, Syndax Pharmaceuticals Inc.'s SNDX6352 anti-CSF1R monoclonal antibody, Novartis Pharmaceutical's BLZ945 CSF1R-directed small molecule , Daiichi Sankyo Co., Ltd./Plexxikon Inc.'s pexidartinib (PLX3397) and PLX73086 small molecule tyrosine kinase inhibitors, or TKIs, Array Biopharma Inc.'s ARRY-382 CSF1R small molecule TKI or Deciphera Pharmaceuticals' DCC-3014 CSF1R small molecule TKI, with respect to immuno-oncology, and Daiichi Sankyo Co., Ltd./Plexxikon Inc.'s pexidartinib and PLX73086 small molecule TKIs or Novartis AG's MCS110 CSF1 monoclonal antibody, with respect to PVNS, each of which act in the same pathway as cabiralizumab.

If FPA144 were approved for the treatment of gastric cancer, it could face competition from currently approved and marketed products, including 5-fluorouracil, S-1, capecitabine, doxorubicin, cisplatin, oxaliplatin, carboplatin, paclitaxel, irinotecan, and docetaxel and *Cyramza ™* (ramucirumab), and from products currently in early development, including AstraZeneca plc's AZD-4547 and erdafitinib (JNJ-42756493) pan-FGFR small molecules and Daiichi Sankyo's DS-1123 FGFR2 non isoform specific antibody, as well as antibodies that bind to PD-1/PD-L1, including BMS's *Opdivo* , Merck's *Keytruda* ® (pembrolizumab), Merck Serono/Pfizer's avelumab, and AstraZeneca/MedImmune's tremelimumab anti-CTLA4 antibody and durvalumab (MEDI4736) anti-PD-L1 antibody.

If FP-1039 were approved for the treatment of mesothelioma, it could face competition from currently approved and marketed products, such as cisplatin and pemetrexed, or products in development, such as Boehringer Ingelheim's FGF/PDGF/VEGF receptor kinase inhibitor nintedanib (BIBF 1120), Genentech/Roche's *Avastin* ® (bevacizumab), AstraZeneca/MedImmune's tremelimumab anti-CTLA4 antibody or durvalumab (MEDI4736) anti-PD-L1 antibody, Merck's *Keytruda* ® (pembrolizumab) anti-PD1 antibody or BMS's *Opdivo* anti-PD1 antibody used in combination with BMS's *Yervoy* ® (ipilimumab) anti-CTLA-4 antibody.

We believe that our ability to successfully compete will depend on, among other things:

- the efficacy and safety profile of our product candidates, including relative to marketed products and product candidates in development by third parties;
- the time it takes for our product candidates to complete clinical development and receive marketing approval;

- the ability to commercialize any of our product candidates that receive regulatory approval;
- the price of our products, including in comparison to branded or generic competitors;
- whether coverage and adequate levels of reimbursement are available under private and governmental health insurance plans, including Medicare;
- the ability to establish, maintain and protect intellectual property rights related to our product candidates;
- the ability to manufacture commercial quantities of any of our product candidates that receive regulatory approval; and
- acceptance of any of our product candidates that receive regulatory approval by physicians and other healthcare providers.

Our product candidates may not achieve adequate market acceptance among physicians, patients, healthcare payors and others in the medical community necessary for commercial success.

Even if our product candidates receive regulatory approval, they may not gain adequate market acceptance among physicians, patients, healthcare payors and others in the medical community. Our commercial success also depends on coverage and adequate reimbursement of our product candidates by third-party payors, including government payors, generally, which may be difficult or time-consuming to obtain, may be limited in scope and may not be obtained in all jurisdictions in which we may seek to market our products. The degree of market acceptance of any of our approved product candidates will depend on a number of factors, including:

- the efficacy and safety profile of the product candidate, as demonstrated in clinical trials;
- the timing of market introduction of the product candidate as well as competitive products;
- the clinical indications for which the product candidate is approved;
- acceptance of the product candidate as a safe and effective treatment by physicians, clinics and patients;
- the potential and perceived advantages of the product candidate over alternative treatments, including any similar generic treatments;
- the cost of treatment in relation to alternative treatments;
- the availability of coverage and adequate reimbursement and pricing by third parties and government authorities;
- relative convenience and ease of administration;
- the frequency and severity of adverse events;
- the effectiveness of sales and marketing efforts; 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 and patients, we may not generate or derive sufficient revenue from that product candidate and may not become or remain profitable.

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

The regulations that govern marketing approvals, pricing and reimbursement for new drug products vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods, which could negatively impact the revenues we generate from the sale of the product in that particular country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates even if our product candidates obtain marketing approval.

Our ability to commercialize any products successfully also will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Government authorities and other third-party payors, such as private health insurers and health maintenance organizations, determine which medications they will cover and establish reimbursement levels. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that coverage and reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Coverage and reimbursement may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. If coverage and reimbursement are not available or reimbursement is available only to limited levels, we may not successfully commercialize any product candidate for which we obtain marketing approval.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or comparable foreign regulatory authorities. Moreover, eligibility for coverage and reimbursement does not imply that a drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may only be temporary. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Our inability to promptly obtain coverage and profitable reimbursement rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

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

The United States and many foreign jurisdictions have enacted or proposed legislative and regulatory changes affecting the healthcare system that could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product for which we obtain marketing approval.

In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the Affordable Care Act was enacted, which includes measures that have significantly changed the way health care is financed by both governmental and private insurers. In January 2017, Congress voted to adopt a budget resolution for fiscal year 2017, or the Budget Resolution, that authorizes the implementation of legislation that would repeal portions of the Affordable Care Act. Further, on January 20, 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the Affordable Care Act to waive, defer, grant exemptions from, or delay the implementation of any provision of the Affordable Care Act that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. Congress also could consider subsequent legislation to replace elements of the Affordable Care Act that are repealed. We are not certain what impact these developments will be on the pharmaceutical industry and our business.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, in August 2011, then President Obama signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction did not achieve a targeted deficit reduction, which triggered the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of, on average, 2% per fiscal year through 2025 unless Congress takes additional action. Recently, t here has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs .

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

We may become subject to product liability lawsuits, which could cause us to incur substantial liabilities and may limit commercialization of any products we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. Product liability claims may be brought against us by subjects enrolled in our clinical trials, patients, healthcare providers or others using, administering or selling our products. If we cannot successfully defend ourselves against claims that our product candidates or products that we may develop caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- termination of clinical trials at particular site or entire trial programs;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend the related litigation;

- substantial monetary awards payable to trial subjects or patients;
- loss of revenue;
- diversion of management and scientific resources from our business operations; and
- the inability to commercialize any products that we may develop.

We currently hold $10 million in clinical trial liability insurance coverage, which may not adequately cover all liabilities that we may incur. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. We intend to expand our insurance coverage for products to include the sale of commercial products if we obtain marketing approval for our product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. Large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us, particularly if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

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

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

- the federal Anti-Kickback Statute prohibits persons from, among other things, 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, the referral of an individual for the furnishing or arranging for the furnishing, or the purchase, lease or order, or arranging for or recommending purchase, lease or order, of any good or service for which payment may be made under a federal healthcare program such as Medicare or Medicaid;
- the federal false claims laws, including, without limitation, the civil False Claims Act (which can be enforced by private citizens through whistleblower or qui tam actions),impose civil and criminal penalties against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, and its implementing regulations, or HIPAA, imposes criminal liability for knowingly and willfully executing a scheme to defraud any healthcare benefit program, knowingly and willfully embezzling or stealing from a health care benefit program, willfully obstructing a criminal investigation of a health care offense, or knowingly and willfully making false statements relating to healthcare matters;
- HIPAA also imposes obligations on certain covered entity health care providers, health plans and health care clearinghouses as well as their business associates that perform certain services involving the use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

- the federal Open Payments program 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 U.S. Department of Health and Human Services information related to "payments or other transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians (as defined above) and their immediate family members; 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 and foreign 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 or otherwise restrict payments that may be made to healthcare providers; state and foreign 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 that govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, reputational harm, and the curtailment or restructuring of our operations. If any physician or other healthcare provider or entity with whom we expect to do business is found not to be in compliance with applicable laws, that person or entity may be subject to criminal, civil or administrative sanctions, including exclusions from government-funded healthcare programs.

We must attract and retain highly skilled employees in order to succeed.

We are experiencing significant growth in our operations as we expand the scope of our research and clinical activities, including our conduct of a Phase 2 clinical trial of cabiralizumab in PVNS, a Phase 1a/1b clinical trial of cabiralizumab in combination with *Opdivo* in multiple cancers, a Phase 1 clinical trial of FPA144 in gastric cancer and our preclinical development and immuno-oncology research activities. Our success will depend in part on our ability to manage our growth, including increases to our headcount, effectively. To succeed, we must continue to recruit, retain, manage and motivate qualified clinical, scientific, technical and management personnel and we face significant competition for experienced personnel. If we do not succeed in attracting and retaining qualified personnel, particularly at the management level, it could adversely affect our ability to execute our business plan and harm our operating results. In particular, the loss of one or more of our executive officers could be detrimental to us if we cannot recruit suitable replacements in a timely manner. The competition for qualified personnel in the pharmaceutical field is intense and, as a result, we may be unable to continue to attract and retain qualified personnel necessary for the development of our business or to recruit suitable replacement personnel.

Many of the other pharmaceutical companies against which we compete for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. They also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may appeal more to high-quality candidates than what we have to offer. If we are unable to continue to attract and retain high-quality personnel, the rate and success at which we can discover and develop product candidates and our business will be limited.

Our operations are vulnerable to interruption by fire, earthquake, power loss, telecommunications failure, terrorist activity, political and economic instability in the countries in which we operate and other events beyond our control, which could harm our business.

Our computer and other systems, or those of our partners, third-party CROs or other service providers, may fail or be interrupted, including due to fire, earthquake or other natural disasters, hardware, software, telecommunication or electrical failures or terrorism, or suffer security breaches, including due to computer viruses or unauthorized access, which could significantly disrupt or harm our business or operations. For example, a computing system failure could result in the loss of research or pre-clinical or clinical data important to our discovery, research or development programs, interrupt the conduct of ongoing experiments or otherwise impair our ability to operate, which could result in delays in the advancement of our programs or cause us to incur costs to recover or reproduce lost data. Our facility is located in a seismically active region. We have not undertaken a systematic analysis of the potential consequences to our business and financial results from a major earthquake, fire, power loss, terrorist activity or other disasters and do not have a recovery plan for such disasters. In addition, we do not carry sufficient insurance to compensate us for actual losses from interruption of our business that may occur and any losses or damages incurred by us could harm our business. We maintain multiple copies of each of our protein libraries, most of which we maintain at our headquarters. We maintain one copy of each of our protein libraries offsite in Central California. If both facilities were impacted by the same event, we could lose all our protein libraries, which would have a material adverse effect on our ability to perform our obligations under our discovery collaborations and discover new targets.

Risks Related to Our Dependence on Third Parties

BMS has exclusive global rights for the development and commercialization of cabiralizumab. BMS's failure to timely develop and/or commercialize cabiralizumab would result in a material adverse effect on our business and operating results.

We granted BMS an exclusive global license to develop and commercialize cabiralizumab, subject to certain rights retained by us. Our development collaboration with BMS on cabiralizumab may not be successful due to a number of factors, including the following:

- cabiralizumab may fail to demonstrate in clinical trials sufficient efficacy with an acceptable safety profile to support regulatory approval;
- BMS may be unable to manufacture sufficient quantities of cabiralizumab in a timely or cost-effective manner;
- BMS may be unable to obtain regulatory approval to commercialize cabiralizumab even if clinical and preclinical testing is successful;
- BMS may not succeed in obtaining sufficient reimbursement for cabiralizumab; and
- existing or future products or technologies developed by competitors may be safer, more effective or more conveniently delivered than cabiralizumab.

In addition, we could be adversely affected by:

- BMS's failure to timely perform its obligations under our collaboration agreement;
- BMS's failure to timely or fully develop or effectively commercialize cabiralizumab; or
- a material contractual dispute with BMS.

Any of the foregoing could adversely impact the likelihood and timing of any milestone payments we are eligible to receive and could result in a material adverse effect on our business, results of operations and prospects and would likely cause our stock price to decline.

BMS has the right to terminate our collaboration agreement without cause as well as upon the existence of certain conditions and, in some cases, BMS may terminate on short notice. BMS could also separately pursue alternative potentially competitive products, therapeutic approaches or technologies as a means of developing treatments for the diseases targeted by cabiralizumab.

We may not succeed in establishing and maintaining additional development collaborations, which could adversely affect our ability to develop and commercialize product candidates.

A part of our strategy is to enter into additional product development collaborations, including collaborations with major biotechnology or pharmaceutical companies. We face significant competition in seeking appropriate development partners and the negotiation process is time-consuming and complex. Moreover, we may not succeed in our efforts to establish a development collaboration or other alternative arrangements for any of our other existing or future product candidates and programs because our research and development pipeline may be insufficient, our product candidates and programs may be deemed to be at too early a stage of development for collaborative efforts and/or third parties may not view our product candidates and programs as having the requisite potential to demonstrate safety and efficacy. Even if we are successful in our efforts to establish new development collaborations, the terms that we agree upon may not be favorable to us and we may not be able to maintain such development collaborations if, for example, development or approval of a product candidate is delayed or sales of an approved product candidate are disappointing. Any delay in entering into new development collaboration 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.

Moreover, if we fail to establish and maintain additional development collaborations related to our product candidates:

- the development of certain of our current or future product candidates may be terminated or delayed;
- our cash expenditures related to development of certain of our current or future product candidates would increase significantly and we may need to seek additional financing;
- we may be required to hire additional employees or otherwise develop expertise, such as sales and marketing expertise, for which we have not budgeted; and
- we will bear all of the risk related to the development of any such product candidates.

We rely on third-party CROs to conduct our clinical trials, and if those third-party CROs perform in an unsatisfactory manner, it may harm our business.

We rely on third-party CROs to perform most of the activities related to the conduct of our clinical trials, including site identification, screening, preparation, training, initiation and monitoring, document preparation and coordination, program management and data management. However, we do not directly control the conduct, timing, expense or quality of the performance of these activities. The performance of our CROs will impact the quality and validity of the results of our clinical trials, which we rely on for business planning purposes and include in submissions to regulatory authorities. Although we contract with CROs to conduct most clinical trial related activities, we remain responsible for ensuring that each of our trials is conducted in accordance with the applicable protocol and legal and regulatory requirements. Our reliance on CROs does not relieve us of our legal and regulatory responsibilities.

We and our CROs are required to comply with current Good Clinical Practices, or GCP, which are regulations and guidelines enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities for all of our products in clinical development. Regulatory authorities enforce GCP requirements through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs fail to comply with applicable GCP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply with GCP requirements. In addition, we must conduct our clinical trials with product produced under cGMP requirements. Failure to comply with these regulations may require us to repeat preclinical and clinical trials, which would delay the regulatory approval process.

Our CROs are not our employees. Except for remedies available to us under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources to our ongoing clinical, nonclinical and preclinical programs. If our CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed.

Risks Related to Intellectual Property

If we are unable to obtain or protect intellectual property rights, we may not be able to compete effectively in our market.

Our success depends in significant part on our ability and the ability of our licensors and collaborators to obtain, maintain and defend patents and other intellectual property rights and to operate without infringing the intellectual property rights of others. We have filed numerous patent applications both in the United States and in foreign jurisdictions to obtain patent rights to inventions we have discovered. We have also licensed patent and other intellectual property rights to and from our partners. Some of these licenses give us the right to prepare, file and prosecute patent applications and maintain and enforce patents we have licensed, whereas other licenses may not give us such rights.

In some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications or to maintain the patents covering technology that we license to or from our partners, and we may have to rely on our partners to fulfill these responsibilities. Consequently, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. If our current or future licensors, licensees or collaborators fail to establish, maintain or protect such patents and other intellectual property rights, such rights may be reduced or eliminated. If our licensors, licensees or collaborators are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised.

The patent prosecution process is expensive and time-consuming. We and our current or future licensors, licensees or collaborators may not be able to prepare, file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we or our licensors, licensees or collaborators will fail to file patent applications covering inventions made in the course of development and commercialization activities before a competitor files a patent application covering a similar, independently developed invention. Such competitor's patent application may pose obstacles to our ability to obtain patent protection.

The patent position of biotechnology and pharmaceutical companies generally is uncertain, involves complex legal and factual questions and is the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our and our current or future licensors', licensees' or collaborators' patent rights are uncertain. Our and our licensors', licensees' or collaborators' pending and future patent applications may not result in patents being issued that protect our technology or products, in whole or in part, or which effectively exclude others from commercializing competitive technologies and products. The patent examination process may require us or our licensors, licensees or collaborators to narrow the scope of the claims of our pending and future patent applications, which may limit the scope of protection if patents issue from such applications. Our and our licensors', licensees' or collaborators' patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications, and then only to the extent the issued claims cover the technology.

Furthermore, given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolios may not provide us with adequate protection against third parties seeking to commercialize products similar or identical to ours. We expect to request extensions of patent terms to the extent available in countries where we obtain issued patents. In the United States, the Drug Price Competition and Patent Term Restoration Act of 1984 permits a patent term extension of up to five years beyond the expiration of the patent. However, there are no assurances that the FDA in the United States, and any equivalent regulatory authority in other countries, will grant such extensions, in whole or in part. In such case, our competitors may launch their products earlier than might otherwise be anticipated.

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

Filing, prosecuting, enforcing and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our or our licensors' or collaborators' intellectual property rights in some countries outside the United States can be less extensive than those in the United States. Moreover, the requirements for patentability may differ in certain countries, particularly developing countries. For example, China has a heightened requirement for patentability and specifically requires a detailed description of medical uses of a claimed drug. Therefore, it may be more difficult to obtain patent protection in certain countries relative to others.

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 and our licensors or collaborators may not be able to prevent third parties from practicing our and our licensors' or collaborators' inventions in all countries outside the United States. Competitors may use our and our licensors' or collaborators' 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 and our licensors or collaborators 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 and our licensors' or collaborators' patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us and our licensors or collaborators to stop the infringement of our and our licensors' or collaborators' patents or marketing of competing products in violation of our and our licensors' or collaborators' proprietary rights generally. Proceedings to enforce our and our licensors' or collaborators' patent rights in foreign jurisdictions could result in substantial costs and divert our and our licensors' or collaborators' efforts and attention from other aspects of our business, could put our and our licensors' or collaborators' patents at risk of being invalidated or interpreted narrowly or not issuing, and could provoke third parties to assert counterclaims against us or our licensors or collaborators. We or our licensors or collaborators may not prevail in any lawsuits that we or our licensors or collaborators initiate and, even if we prevail, the damages or other remedies awarded, if any, may not be commercially meaningful.

Biosimilar drug manufacturers or other competitors may challenge the scope, validity or enforceability of our or our licensors' or collaborators' patents in countries outside the United States, requiring us or our licensors or collaborators to engage in complex, lengthy and costly litigation or other proceedings. Biosimilar drug manufacturers may develop, seek approval for, and launch biosimilar versions of our products. In addition to India, certain countries in Europe and developing countries, including China, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In those countries, we and our licensors or collaborators may have limited remedies if we or our licensors or collaborators are compelled to grant a license to a third party, which could materially diminish the value of our patents. This could limit our potential revenue opportunities. Accordingly, our and our licensors' or collaborators' efforts to enforce intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we own or license.

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

Obtaining and enforcing patents in the biopharmaceutical industry is inherently uncertain, due in part to ongoing changes in the patent laws. Depending on decisions by Congress, the federal courts, and the U.S. Patent and Trademark Office, or USPTO, the laws and regulations governing patents could change in unpredictable ways that could weaken our and our licensors' or collaborators' ability to obtain new patents or to enforce existing or future patents. For example, 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. Therefore, there is increased uncertainty with regard to our and our licensors' or collaborators' ability to obtain patents in the future, as well as uncertainty with respect to the value of patents, once obtained.

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

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for our non-compliance with these requirements.

Periodic maintenance and annuity fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign patent agencies also require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in irrevocable abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If we or our licensors or collaborators fail to maintain the patents and patent applications covering our product candidates, our competitors might be able to enter the market, which would have a material adverse effect on our business.

We may become involved in lawsuits to protect or enforce our intellectual property, which could be expensive, time-consuming and unsuccessful and have a material adverse effect on the success of our business.

Third parties may infringe our or our licensors' or collaborators' patents or misappropriate or otherwise violate our or our licensors' or collaborators' intellectual property rights. In the future, we or our licensors or collaborators may initiate legal proceedings to enforce or defend our or our licensors' or collaborators' intellectual property rights or to protect our or our licensors' or collaborators' trade secrets. The outcome of such proceedings may determine or alter the validity or scope of intellectual property rights we own or control. Also, third parties may initiate legal proceedings against us or our licensors or collaborators to challenge the validity or scope of intellectual property rights we own or control. The proceedings can be expensive and time-consuming and many of our or our licensors' or collaborators' adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we or our licensors or collaborators can. Accordingly, despite our or our licensors' or collaborators' efforts, we or our licensors or collaborators may not prevent third parties from infringing or misappropriating intellectual property rights we own or control, particularly in countries where the laws may not protect those rights as fully as in the United States. Litigation could result in substantial costs and diversion of management resources, which could harm our business and financial results. In addition, in an infringement proceeding, a court may decide that a patent owned by or licensed to us is invalid or unenforceable, or may refuse to impose monetary damages or enjoin the other party from using the technology at issue on the grounds that our or our licensors' or collaborators' patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our or our licensors' or collaborators' patents at risk of being invalidated, held unenforceable or interpreted narrowly.

Derivation or interference proceedings in the United States or equivalent proceedings in other jurisdictions may be necessary to determine the priority of inventions with respect to our or our licensors' or collaborators' patents or patent applications. An unfavorable outcome could require us or our licensors or collaborators to cease using the related technology and commercializing our product candidates, 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 or our licensors or collaborators a license or otherwise offers a license on terms that are not on commercially reasonable terms. Even if we or our licensors or collaborators obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us or our licensors or collaborators. In addition, if the breadth or strength of protection provided by our or our licensors' or collaborators' patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates. Even if we prevail in such a proceeding, we may incur substantial costs and it may distract our management and other employees.

If we breach the agreements under which third parties have licensed intellectual property rights to us, we could lose the ability to use certain of our technologies or continue the development and commercialization of our product candidates.

Our commercial success depends upon our ability, and the ability of our licensors and collaborators, to discover and validate protein therapeutic targets and identify, test, develop, manufacture, market and sell product candidates without infringing the proprietary rights of third parties. A third party may hold intellectual property rights, including patent rights, that are important or necessary to the development or commercialization of our products. As a result, we are a party to a number of licenses that are important to our business and expect to enter into additional licenses in the future. For example, we have entered into a non-exclusive license with BioWa, Inc. and Lonza Sales AG to use their Potelligent ® CHOK1SV technology, which is necessary to produce our FPA144 antibody; an exclusive license with Inhibrx to antibodies to GITR, which we are preclinically developing in our FPA154 program; and non-exclusive licenses with each of the National Research Council of Canada and the Board of Trustees of the Leland Stanford Junior University to use materials and technologies that we use in the production of our protein library. If we fail to comply with the obligations under these agreements, including payment and diligence terms, our licensors may have the right to terminate these agreements, in which event we may not be able to develop, manufacture, market or sell any product that is covered by these agreements or may face other penalties under the agreements. Such an occurrence could materially adversely affect the value of the product candidate being developed under any such agreement. Termination of these agreements or reduction or elimination of our rights under these agreements may result in our having to negotiate new or reinstated agreements, which may not be available to us on equally favorable terms, or at all, or cause us to lose our rights under these agreements, including our rights to intellectual property or technology important to our development programs.

Third parties may initiate legal proceedings against us alleging that we infringe their intellectual property rights or we may initiate legal proceedings against third parties to challenge the validity or scope of intellectual property rights controlled by such third parties, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Third parties may initiate legal proceedings against us or our licensors or collaborators alleging that we or our licensors or collaborators infringe their intellectual property rights or we or our licensors or collaborators may initiate legal proceedings against third parties to challenge the validity or scope of intellectual property rights controlled by such third parties, including in oppositions, interferences, reexaminations, *inter partes* reviews or derivation proceedings in the United States or other jurisdictions. These proceedings can be expensive and time-consuming and many of our or our licensors' or collaborators' adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we or our licensors or collaborators can.

An unfavorable outcome could require us or our licensors or collaborators to cease using the related technology or developing or commercializing our product candidates, 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 or our licensors or collaborators a license, or otherwise offers a license on terms that are not commercially reasonable. Even if we or our licensors or collaborators obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us or our licensors or collaborators. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business.

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 shares of our common stock.

In May 2011, the European Patent Office, or the EPO, granted European Patent No. 2092069, or the ’069 patent, to Aventis Pharma S.A., or Aventis. The ’069 patent claimed soluble fibroblast growth factor receptor Fc fusion proteins having certain levels of glycosylation, some of which claims could have been relevant to our FP-1039 product candidate. In February 2012, we filed an opposition to the ’069 patent. In March 2013, we attended oral proceedings before the Opposition Division of the EPO and presented our arguments regarding our opposition to the ’069 patent. In April 2013, the Opposition Division of the EPO published an Interlocutory Decision regarding the outcome of the oral proceedings. In the Interlocutory Decision, the EPO maintained certain claims of the ’069 patent covering FGFR2 fusion proteins, but not FGFR1 fusion proteins such as FP-1039. Although this proceeding has concluded, Aventis has pursued claims in other countries that are similar to those originally granted by the EPO in the ’069 patent and we may need to initiate similar opposition or other legal proceedings in other jurisdictions with respect to patents that may issue with similar scope of claims as those originally granted in the ’069 patent. If we unsuccessfully oppose Aventis’ similar patents in a country, we could be required to obtain a license from Aventis to continue developing and commercializing FP-1039 in that country.

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

Many of our employees, including our senior management, were previously employed at universities or at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Some of these employees executed proprietary rights, non-disclosure and non-competition agreements in connection with such previous employment. Although we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees have used or disclosed confidential information or intellectual property, including trade secrets or other proprietary information, of any such employee’s former employer. Litigation may be necessary to defend against these claims.

If we fail in defending against any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel or sustain damages. Such intellectual property rights could be awarded to a third party, and we could be required to obtain a license from such third party to commercialize our technology or products. Such a license may not be available or may not be available on commercially reasonable terms. Even if we successfully defend against such claims, litigation could result in substantial costs and distract management.

Our inability to protect our confidential information and trade secrets would harm our business and competitive position.

In addition to seeking patents for some of our technology and products, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. For example, in January 2016, GSK informed us that the U.S. Attorney’s Office had arrested and charged certain individuals, including two former GSK employees, with theft of trade secrets from GSK, which theft included information related to FP-1039. However, 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 both within and outside the United States may be less willing or unwilling to protect trade secrets. If a competitor lawfully obtained or independently developed any of our trade secrets, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position.

Risks Related to the Ownership of Our Common Stock

The market price of our stock may be volatile.

The trading price of our common stock has been and is likely to continue to be volatile. Since shares of our common stock were sold in our IPO in September 2013, our closing stock price as reported on The NASDAQ Global Market and The NASDAQ Global Select Market has ranged from $8.49 to $60.98 through February 23, 2017. The following factors, in addition to other risk factors described in this section and elsewhere in this report, may have a significant impact on the market price of our common stock:

- the success of competitive products or technologies;
- regulatory actions with respect to our products or our competitors' products;
- actual or anticipated changes in our or our partners' growth rates relative to our competitors;
- announcements by us, our partners or our competitors of significant acquisitions, strategic collaborations, joint ventures, collaborations or capital commitments;
- results of clinical trials of our product candidates or those of our competitors;
- failure of our partners' to effectively execute or changes in our partners' strategies with respect to our products or collaborations;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- our dependence on third parties, including contract manufacturers, CROs, and any partners we may engage to develop and provide us with companion diagnostic products;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- the results of our efforts to in-license or acquire additional product candidates or products;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- announcements or expectations of additional financing efforts;
- sales of our common stock by us, our insiders or our other stockholders;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors; and
- general economic, industry and market conditions.

In addition, the stock market in general, and The NASDAQ Global Select Market and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. The realization of any of the above risks or any of a broad range of other risks, including those described in this "Risk Factors" section, could have a dramatic and material adverse impact on the market price of our common stock.

We may be subject to securities litigation, which is expensive and could divert management attention.

The market price of our common stock may be volatile, and in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

Our principal stockholders and management own a significant percentage of our stock and may be able to exert significant control over matters subject to stockholder approval.

As of December 31, 2016, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates beneficially owned approximately 51% of our common stock. This concentration of share ownership may adversely affect the trading price of our common stock because investors often perceive disadvantages in owning stock in companies with controlling stockholders. As a result, these stockholders, acting together, could significantly influence all matters requiring approval by our stockholders, including the election of directors and the approval of mergers or other business combination transactions. The interests of these stockholders may not always coincide with our interests or the interests of other stockholders.

Sales of a substantial number of shares of our common stock in the public market by our existing stockholders 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 depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our common stock.

Some of the holders of our securities are entitled to rights with respect to the registration of their shares under the Securities Act of 1933, as amended, or the Securities Act. 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 our 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.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

We are subject to the periodic reporting requirements of the Exchange Act. We designed our disclosure controls and procedures to reasonably assure that information we must disclose in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would benefit our stockholders, and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could make it more difficult or costly for a third party to acquire us, even if doing so would benefit our stockholders, and could make it more difficult to remove our current management. These provisions include:

- authorizing the issuance of "blank check" preferred stock, the terms of which we may establish and shares of which we may issue without stockholder approval;
- prohibiting cumulative voting in the election of directors, which would otherwise allow for less than a majority of stockholders to elect director candidates;
- prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;
- eliminating the ability of stockholders to call a special meeting of stockholders; and
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management. Because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the General Corporation Law of the State of Delaware, or the DGCL, which may discourage, delay or prevent someone from acquiring us or merging with us whether or not it is desired by or beneficial to our stockholders. Under the DGCL, 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 things, the board of directors has approved the transaction. Any provision of our amended and restated certificate of incorporation or amended and restated bylaws or Delaware law that has the effect of delaying or deterring a change of control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

Item 1B. U nresolved Staff Comments.

None.

Item 2. Properties.

Our principal executive office is currently located in South San Francisco, California, and consists of 81,235 square feet of leased office and laboratory space, all of which is located in a single building, under a lease that expires on December 31, 2017. We believe that our existing facilities are sufficient for our current needs.

In December 2016, we entered into a new lease, consisting of 115,466 square feet of office and laboratory space, located at 111 Oyster Point Drive, South San Francisco, California, or the premises. This office and laboratory space will serve as our future principal executive office. The term of the lease will begin on the later to occur of (i) January 1, 2018 and (ii) 30 days after the premises are ready for our occupancy, which requires the landlord to deliver the premises to us after certain tenant improvements to the premises are completed. The term of the lease ends on the 10-year anniversary of the rent commencement date, subject to our one-time option to extend the lease term for an additional five years. We expect the premises to be ready for our occupancy on or around December 1, 2017.

Item 3. Legal Proceedings.

We are not currently subject to any material legal proceedings.

Item 4. Mine Safety Disclosures.

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our common stock is traded on The NASDAQ Global Select Market under the symbol "FPRX." The following table sets forth the high and low intraday sale prices per share of our common stock for the periods indicated as reported by the NASDAQ Global Select Market.

	High	Low
Years Ended December 31, 2016		
First Quarter	$ 41.84	$ 28.01
Second Quarter	50.11	37.03
Third Quarter	55.00	41.13
Fourth Quarter	60.98	45.23

	High	Low
Years Ended December 31, 2015		
First Quarter	$ 28.47	$ 21.50
Second Quarter	26.00	19.07
Third Quarter	27.62	14.70
Fourth Quarter	45.72	14.73

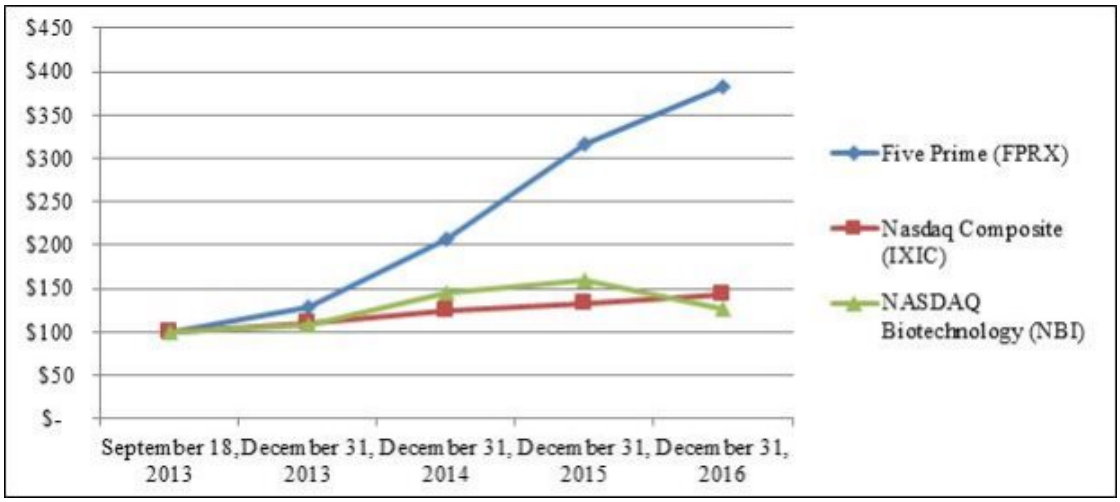
As of February 17, 2017, we had 28,957,118 shares of common stock outstanding held by approximately 38 stockholders of record. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock and do not anticipate paying any cash dividends in the foreseeable future. Payment of cash dividends, if any, in the future will be at the discretion of our board of directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

Stock Performance Graph

The following graph illustrates a comparison of the total cumulative stockholder return on our common stock since our initial public offering on September 18, 2013 with the NASDAQ Composite Index and the NASDAQ Biotechnology Index. The stockholder return shown in the graph below is not necessarily indicative of future performance, and we do not make or endorse any predictions as to future stockholder returns. This graph shall not be deemed "soliciting material" or be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any of our filings under the Securities Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.



$100 investment in stock or index	September 30, 2013	December 31, 2013	December 31, 2014	December 31, 2015	December 31, 2016
Five Prime (FPRX)	$ 100.00	$ 128.36	$ 206.42	$ 317.28	$ 383.10
NASDAQ Composite Index (IXIC)	$ 100.00	$ 110.39	$ 125.17	$ 132.34	$ 142.27
NASDAQ Biotechnology (NBI)	$ 100.00	$ 107.41	$ 144.04	$ 160.49	$ 125.69

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. Selected Financial Data.

You should read the following selected financial data together with the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this report and our financial statements and the accompanying notes included elsewhere in this report. We have derived the statements of operations data for the years ended December 31, 2016, 2015 and 2014 and the balance sheet data as of December 31, 2016 and 2015 from our audited financial statements appearing in this report. We have derived the statements of operations data for the years ended December 31, 2013 and 2012 and the balance sheet data as of December 31, 2014, 2013 and 2012 from our audited financial statements not included in this report. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period.

	Year Ended December 31,				
(in thousands, except per share amounts)	**2016**	**2015**	**2014**	**2013**	**2012**
Statement of Operations Data:					
Collaboration and license revenue	$ 30,691	$ 379,801	$ 19,231	$ 13,791	$ 9,983
Operating expenses:					
Research and development	94,072	70,197	43,173	32,785	28,778
General and administrative	35,831	22,631	13,632	10,427	9,009
Total operating expenses	129,903	92,828	56,805	43,212	37,787
Income (loss) from operations	(99,212)	286,973	(37,574)	(29,421)	(27,804)
Interest income	2,467	487	210	62	88
Other income (expense), net	—	(3)	(60)	487	121
Income (loss) before income taxes	(96,745)	287,457	(37,424)	(28,872)	(27,595)
Income tax benefit (provision)	31,048	(37,810)	—	—	—
Net income (loss)	$ (65,697)	$ 249,647	$ (37,424)	$ (28,872)	$ (27,595)
Basic net income (loss) per share attributable to common stockholders [1]	$ (2.44)	$ 9.73	$ (1.79)	$ (5.23)	$ (23.05)
Diluted net income (loss) per share attributable to common stockholders [1]	$ (2.44)	$ 9.23	$ (1.79)	$ (5.23)	$ (23.05)
Weighted average shares of common stock outstanding used in computing basic net income (loss) per share [1]	26,955	25,661	20,865	5,523	1,197
Weighted average shares of common stock outstanding used in computing diluted net income (loss) per share [1]	26,955	27,035	20,865	5,523	1,197

(1) See Note 7 to our financial statements for an explanation of the method used to calculate basic and diluted net income (loss) per share of common stock and the weighted average number of shares used in computation of the per share amounts.

	As of December 31,				
(in thousands)	**2016**	**2015**	**2014**	**2013**	**2012**
Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$ 421,748	$ 517,466	$ 149,054	$ 75,722	$ 38,015
Working capital	401,384	448,913	131,443	63,835	26,017
Total assets	448,281	548,285	155,631	81,791	44,091
Preferred stock warrant liability	—	—	—	—	563
Convertible preferred stock	—	—	—	—	136,282
Total stockholders' equity (deficit)	391,575	433,206	85,205	58,026	(115,878)

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion of our financial condition and results of operations in conjunction with the financial statements and the related notes included elsewhere in this Annual Report on Form 10-K. The following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Annual Report on Form 10-K, particularly in "Special Note Regarding Forward-Looking Statements and Industry Data" and "Risk Factors."

Overview

We are a clinical-stage biotechnology company focused on discovering and developing innovative protein therapeutics to improve the lives of patients with serious diseases. We currently have three clinical-stage product candidates covering multiple potential indications. Each of our product candidates has an innovative mechanism of action and addresses patient populations for which better therapies are still needed. We have an emphasis in immuno-oncology, an area in which we have clinical and discovery programs and product and discovery collaborations. In addition, we plan to use companion diagnostics where appropriate to allow us to select patients most likely to benefit from treatment. Our most advanced product candidates are identified below.

- **Cabiralizumab (FPA008)** is an antibody that inhibits colony stimulating factor-1, or CSF1, receptor, or CSF1R, that we are studying in clinical trials as a monotherapy in pigmented villonodular synovitis, or PVNS, and in multiple cancers in combination with Bristol-Myers Squibb Company's PD-1 immune checkpoint inhibitor , *Opdivo* . In October 2015, we entered into a license and collaboration agreement, or the cabiralizumab collaboration agreement, with Bristol-Myers Squibb Company, or BMS, pursuant to which we granted BMS an exclusive worldwide license for the development and commercialization of cabiralizumab .
- **FPA144** is an antibody that inhibits fibroblast growth factor receptor 2b, or FGFR2b, that we are initially developing to treat patients with gastric (stomach) cancer and is in a Phase 1 clinical trial.
- **FP-1039** is a fusion protein that "traps" and neutralizes cancer-promoting fibroblast growth factors, or FGFs, involved in cancer cell proliferation and new blood vessel formation that is in Phase 1b clinical development to treat patients with malignant pleural mesothelioma.

We have a differentiated target discovery platform and library of more than 5,700 human transmembrane and extracellular soluble proteins that we believe encompasses substantially all of the body's medically important targets for protein therapeutics. We have identified approximately 700 of these proteins, which we refer to as the immunome, that we believe modulate immune cell interactions and may be important in understanding and treating cancer patients using immuno-oncology therapeutics. Our target discovery platform and capabilities uniquely position us to explore pathways in cancer and inflammation and their intersection in immuno-oncology, an area of oncology with significant therapeutic potential and the focus of our research activities. We are applying all aspects of our biologics discovery platform, including cell-based screening, immunome-by-immunome screening, *in vivo* screening, receptor-ligand matching technologies and bioinformatics, in our immuno-oncology research program. We have identified several targets that we believe could be useful in immuno-oncology that we are actively validating, and we are also looking for additional targets. We generate and preclinically test therapeutic proteins, including antibodies and ligand traps containing or directed to the targets we identify. We plan to advance selected therapeutic candidates into clinical development, with a goal of filing at least one Investigational New Drug, or IND, application for a new molecule each year beginning in 2017.

We have no products approved for commercial sale and have not generated any revenue from product sales to date. We continue to incur significant research and development and other expenses related to our ongoing operations and we expect that our expenses will increase as we advance our product candidates into later stages of clinical development and increase the number of product candidates in clinical development. We have incurred losses in each period since our inception in 2002, with the exception of the fiscal year ended December 31, 2015, due primarily to the $350.0 million upfront payment we received from BMS from our license and collaboration agreement for cabiralizumab , and the fiscal year ended December 31, 2011, due primarily to the $50.0 million upfront payment we received from GSK from our license and collaboration agreement for FP-1039. For the years ended December 31, 2016 and 2015, we reported net loss of $65.7 million and net income of $249.6 million, respectively.

Critical Accounting Policies and Use of Estimates

Our management's discussion and analysis of financial condition and results of operations is based upon our financial statements, which we have prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the balance sheets and the reported amounts of collaboration revenue and expenses during the reporting periods. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances at the time we make such estimates. Actual results and outcomes may differ materially from our estimates, judgments and assumptions. We periodically review our estimates in light of changes in circumstances, facts and experience. The effects of material revisions in estimates are reflected in the financial statements prospectively from the date of the change in estimate. Our significant accounting policies are more fully described in Note 2. Summary of Significant Accounting Policies included in Part II, Item 8 of this Annual Report on Form 10-K.

We define our critical accounting policies as those accounting principles generally accepted in the United States of America that require us to make subjective estimates and judgments about matters that are uncertain and are likely to have a material impact on our financial condition and results of operations as well as the specific manner in which we apply those principles. We believe the critical accounting policies used in the preparation of our financial statements that require significant estimates and judgments are as follows:

Revenue Recognition

We recognize revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; transfer of technology has been completed or services have been rendered; our price to the customer is fixed or determinable; and collectability is reasonably assured.

The terms of our collaborative research and development agreements include upfront and license fees, research funding, milestone and other contingent payments to us for the achievement of defined collaboration objectives and certain preclinical, clinical, regulatory and sales-based events, as well as royalties on sales of any commercialized products.

Multiple-Element Revenue Arrangements . Our collaborations primarily represent multiple-element revenue arrangements. To account for these transactions, we determine the elements, or deliverables, included in the arrangement and determine which deliverables are separable for accounting purposes. We consider delivered items to be separable if the delivered items have stand-alone value to the customer. If the delivered items are separable, we allocate arrangement consideration to the various elements based on each element's relative selling price. The identification of individual elements in a multiple-element arrangement and the estimation of the selling price of each element involve significant judgment, including consideration as to whether each delivered element has standalone value to the customer. The revenue recognition standard established the hierarchy of determining the estimated selling price for deliverables within each agreement using vendor-specific objective evidence (VSOE) of selling price, if available, or third party evidence of selling price if VSOE is not available, or our best estimate of selling price, if neither VSOE nor third party evidence is available. Determining the best estimate of selling price for a deliverable requires significant judgment. We use our best estimate of selling price to estimate the selling price for licenses to our proprietary technology since the VSOE or third party evidence of selling price for these deliverables is not available.

We recognize consideration allocated to an individual element when all other revenue recognition criteria are met for that element. Our multiple-element revenue arrangements generally include the following:

- **Exclusive Licenses** . The deliverables under our collaboration agreements generally include exclusive licenses to discover, develop, manufacture and commercialize certain compounds. To account for this element of the arrangement, we evaluate whether the exclusive license has standalone value apart from the undelivered elements to the collaboration partner based on the consideration of the relevant facts and circumstances of each arrangement, including the research and development capabilities of the collaboration partner and other market participants. We recognize arrangement consideration allocated to licenses upon delivery of the license if facts and circumstances indicate that the license has standalone value apart from the undelivered elements, which generally include research and development services. If facts and circumstances indicate that the delivered license does not have standalone value from the undelivered elements, we recognize the revenue as a combined unit of accounting.

  We have determined that some of our exclusive licenses lack standalone value apart from the related research and development services. In those circumstances, we recognize collaboration revenue from non-refundable upfront and license fees in the same manner as the undelivered item(s), which is generally the period over which we provide the research and development services. For circumstances in which upfront and license fees are contingently refundable, we defer the recognition of the upfront and license fees until such time that the consideration is considered to be fixed or determinable.
- **Research and Development Services** . The deliverables under our collaboration and license agreements generally include deliverables related to research and development services we perform on behalf of the collaboration partner. As the provision of research and development services is a part of our central operations and we are principally responsible for the performance of these services under the agreements, we recognize revenue on a gross basis for research and development services as we perform those services. Additionally, we recognize research funding related to collaborative research and development efforts as revenue as we perform or deliver the related services in accordance with contract terms as long as we will receive payment for such services upon standard payment terms.

Milestone Revenue. Our collaboration and license agreements generally include contingent and milestone payments related to specified research, development and regulatory milestones and sales-based milestones. Research, development and regulatory contingent and milestones payments are typically receivable under our collaborations when our collaborator claims or selects a target, initiates or advances a covered product candidate in preclinical or clinical development, upon submission for marketing approval of a covered product with regulatory authorities, upon receipt of actual marketing approvals of a covered product or for additional indications, or upon the first commercial sale of a covered product. Sales-based milestones are typically receivable when annual sales of a covered product reach specified levels.

At the inception of each arrangement that includes milestone payments, we evaluate whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. We evaluate factors such as the scientific, regulatory, commercial and other risks that we must overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment.

We have elected to adopt the Accounting Standards Codification (ASC) 605-28, *Revenue Recognition — Milestone Method,* such that we recognize any payment that is contingent upon the achievement of a substantive milestone entirely in the period in which the milestone is achieved. A milestone is defined as an event that can only be achieved based in whole or in part on either our performance or the occurrence of a specific outcome resulting from our performance for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved. Therefore, a milestone does not include events for which occurrence is contingent solely on the performance of a collaborative partner. To be substantive, a milestone must meet all of the following criteria: the consideration receivable upon the achievement of the milestone is commensurate with either our performance after the agreement to achieve the milestone or the enhancement of value of delivered items as a result of a specific outcome resulting from our performance after the agreement to achieve the milestone, the consideration relates solely to past performance, and the consideration is reasonable relative to all of the deliverables and payment terms in the arrangement.

Research and Development Expenses

Research and development expenses consist of costs we incur for our own and for sponsored and collaborative research and development activities. Expenses we incur related to collaborative research and development agreements approximate the revenue recognized under these agreements. Research and development costs are expensed as incurred. Research and development costs consist of salaries and benefits, including associated stock-based compensation, laboratory supplies and facility costs, as well as fees paid to other entities that conduct certain research and development activities on our behalf. We estimate preclinical study and clinical trial expenses based on the services performed pursuant to contracts with research institutions and contract research organizations, or CROs, and clinical manufacturing organizations, or CMOs, that conduct and manage preclinical studies and clinical trials on our behalf based on actual time and expenses incurred by them. Further, we accrue expenses related to clinical trials based on the level of patient enrollment and activity according to the related agreement. We monitor patient enrollment levels and related activity to the extent reasonably possible and adjust estimates accordingly. If we do not identify costs that we have begun to incur or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates. To date, we have not experienced significant changes in our estimates of preclinical studies and clinical trial accruals.

We expense payments for the acquisition and development of technology as research and development costs if, at the time of payment the technology: is under development; is not approved by the U.S. Food and Drug Administration or other regulatory agencies for marketing; has not reached technical feasibility; or otherwise has no foreseeable alternative future use.

Stock-Based Compensation

We issue stock-based compensation awards in the form of restricted stock awards and stock options. We measure stock-based compensation expense related to these awards based on the fair value of the award on the date of grant and recognize stock-based compensation expense, less estimated forfeitures, on a straight-line basis over the requisite service period of the awards, which generally equals the vesting period.

Restricted stock awards we grant to employees generally vest over one and a half to three years. We base stock-based compensation expense related to restricted stock awards on the closing market value of our common stock at the date of grant and recognize expense ratably over the requisite service period. We base expected forfeiture rates for restricted stock awards on historical data, and we adjust compensation expense for actual results.

Stock options we grant to employees generally vest over four years. We have selected the Black-Scholes option pricing model to determine the fair value of stock option awards, which requires the input of various assumptions that require management to apply judgment and make assumptions and estimates, including:

- The expected term of the stock option award, which we calculate using the simplified method in accordance with the Securities and Exchange Commission Staff Accounting Bulletin Nos. 107 and 110, which calculates the expected term as the midpoint of the contractual term of the options and the ordinary vesting period, as we have insufficient historical information regarding our stock options to provide another basis for estimate. We expect to use the simplified method until we have sufficient historical exercise data to provide a reasonable basis upon which to estimate expected term;
- The expected volatility of the underlying common stock, which in 2013 and prior years was estimated based on the average historical volatility of a peer group of comparable publicly traded life sciences and biotechnology companies over the expected term, as we did not have significant trading history for our common stock during those periods. We estimated volatility for options granted in 2014 and 2015 based on the average of the historical volatility of our common stock price and a peer group of public companies. We selected the peer group on the basis of operational and economic similarity with our business operations. Beginning in 2016, we estimated volatility for options based on the historical volatility of our common stock price since we became publicly traded;
- The assumed dividend yield, which is based on our expectation of not paying dividends for the foreseeable future;
- The fair value of our common stock is determined on the date of grant, as described below.

We estimated the fair value of each stock option using the Black-Scholes option-pricing model based on the date of grant of such stock option with the following assumptions:

	Year Ended December 31,		
	2016	**2015**	**2014**
Expected term (years)	5.5-6.3	5.5-6.1	5.3-6.7
Expected volatility	69.0-74.0%	71.0-76.0%	85.0%
Risk-free interest rate	1.3-1.8%	1.4-1.9%	1.6-2.0%
Expected dividend yield	0.0%	0.0%	0.0%

The amount of stock-based compensation expense we recognize during a period is based on the value of the portion of the awards that we expect to ultimately vest. We estimate forfeitures for employee grants at the time of grant, and revise the estimates, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Ultimately, the actual expense recognized over the vesting period will only represent those options that vest. Changes in the estimated forfeiture rate can have a significant impact on our stock-based compensation expense as the cumulative effect of adjusting the rate is recognized in the period the forfeiture estimate is changed. For instance, if a revised forfeiture rate is lower than the previously estimated forfeiture rate, we make an adjustment that will result in an increase to the stock-based compensation expense recognized in our financial statements. To date, our forfeitures have been immaterial.

Restricted stock awards granted to individual service providers who are not employees or directors are accounted for at fair value by remeasuring the cost based on the closing stock price at the end of that reporting period.

Stock options granted to individual service providers who are not employees or directors are accounted for at estimated fair value using the Black-Scholes option-pricing method and are subject to periodic remeasurement over the period during which the services are rendered.

For stock options granted subsequent to our September 2013 IPO, the exercise price equals the closing market price of the underlying common stock on the grant date.

Income Taxes

We account for income taxes using the liability method, under which deferred tax assets and liabilities are determined based on differences between financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Our income tax benefit for 2016 relates to our ability to carry back 2016 losses to the 2015 tax year and to obtain a refund of taxes paid related to a prior period. Valuation allowances are provided when the expected realization of the deferred tax assets does not meet the more-likely-than-not criteria. As a result, deferred tax assets at the end of 2016 are subject to a full valuation allowance. We are required to determine whether it is more likely than not that a tax position will be sustained upon examination by the appropriate taxing authorities before any part of the benefit can be recorded in the financial statements. It is our practice to recognize interest and penalties related to unrecognized tax benefits, if any, as a component of income tax expense.

New Accounting Standards

For a discussion of new accounting standards please read Note 2. Summary of Significant Accounting Policies included in Part II, Item 8 of this Annual Report on Form 10-K.

Financial Overview

Collaboration and License Revenue

We have not generated any revenue from product sales. We have derived our revenue to date from upfront payments, research and development funding and milestone payments under collaboration and license agreements with our collaboration partners and licensees. We currently have an active immuno-oncology research collaboration and cabiralizumab license and collaboration agreement with BMS. For additional information on these collaborations, please see the section entitled "Business – Collaborations" located elsewhere in this report. We completed the research term of our research collaboration in respiratory diseases with GSK and our fibrosis and CNS research collaboration with UCB Pharma S.A., or UCB, in July 2016 and March 2016, respectively.

Summary Revenue by Collaboration and License Agreements

The following is a comparison of collaboration and license revenue for the years ended December 31, 2016, 2015 and 2014:

	Year Ended December 31,		
(in millions)	**2016**	**2015**	**2014**
R&D Funding			
Cabiralizumab Collaboration - BMS	$ 8.5	$ 3.5	$ —
Immuno-oncology Research Collaboration - BMS	3.3	2.5	2.5
Respiratory Diseases Collaboration - GSK	2.4	4.0	3.7
Muscle Diseases Collaboration - GSK	—	—	0.8
FP-1039 Product Collaboration - GSK	—	0.1	0.1
Fibrosis and CNS Collaboration - UCB	0.1	0.9	0.3
Other	—	—	0.1
Ratable Revenue Recognition			
Cabiralizumab Collaboration - BMS	5.9	6.4	—
Immuno-oncology Research Collaboration - BMS	4.4	4.5	3.5
Respiratory Diseases Collaboration - GSK	0.8	2.7	2.7
Muscle Diseases Collaboration - GSK	—	—	0.9
Fibrosis and CNS Collaboration - UCB	3.0	3.0	2.9
Milestone and Contingent Payments			
Respiratory Diseases Collaboration - GSK	1.8	0.6	—
Muscle Diseases Collaboration - GSK	—	—	1.7
Fibrosis and CNS Collaboration - UCB	0.4	0.1	—
Other License Revenue			
Cabiralizumab Collaboration - BMS	—	350.0	—
bluebird bio License Agreement	0.1	1.5	—
Total	$ 30.7	$ 379.8	$ 19.2

We expect that any revenue we generate will fluctuate from period to period as a result of the timing and amount of milestones and other payments from our existing collaborations and licenses or entry into any new collaborations.

BMS License and Collaboration Agreement

In October 2015, we entered into the cabiralizumab collaboration agreement with BMS, pursuant to which we granted to BMS an exclusive, worldwide license to develop and commercialize certain CSF1R antibodies, including cabiralizumab , and all modifications, derivatives, fragments or variants of such antibodies, each of which we refer to as a licensed antibody. The cabiralizumab collaboration agreement superseded the clinical trial collaboration agreement that we entered into with BMS in November 2014, or the clinical trial collaboration agreement. We continue to conduct the current Phase 1a/1b clinical trial to evaluate the safety, tolerability and preliminary efficacy of combining *Opdivo* ® (nivolumab) with cabiralizumab in multiple tumor types, or the current trial, that we commenced under the clinical trial collaboration agreement. BMS bears all costs and expenses relating to the current trial, including manufacturing costs for the supply of cabiralizumab, except that we are responsible for our own internal costs, including internal personnel costs.

Pursuant to the cabiralizumab collaboration agreement, BMS obtained license rights and paid us an upfront fee of $350.0 million which we fully recognized as revenue in the fourth quarter of 2015. We identified the license to BMS and the associated transfer of manufacturing and other know-how as substantive deliverables under this agreement. We fully delivered these deliverables as of December 31, 2015. Additionally, with respect to each licensed product, we will be eligible to receive up to (i) $505.0 million in specified developmental and regulatory milestone payments for all combination therapies of such licensed product with *Opdivo* ; (ii) $542.5 million in specified developmental and regulatory milestone payments for combination therapies of such licensed product with one or more of BMS' or our proprietary products, at least one of which is not *Opdivo* , in the field of oncology; and (iii) $340.0 million in specified developmental and regulatory milestone payments for therapeutic uses of such licensed product in PVNS and non-oncology indications.

BMS will also be obligated to pay us, with respect to each licensed product in each country, tiered percentage royalties ranging from the high teens to the low twenties, subject to reduction in certain circumstances, on worldwide net sales of such licensed product until the latest of (i) the expiration of certain patents covering such licensed product in such country, (ii) the date on which any applicable regulatory, pediatric, orphan drug or data exclusivity with respect to such licensed product expires in such country, (iii) the date of the first commercial sale in such country of a biosimilar product with respect to such licensed product or (iv) 12 years after the first commercial sale of such licensed product in such country. Under the cabiralizumab collaboration agreement, BMS will be obligated to pay us an additional low single-digit percentage royalty on net sales in the U.S. in the event we exercise our co-promotion option. We cannot determine the date on which BMS's potential royalty payment obligations to us would expire because BMS has not yet developed any licensed products under the agreement and therefore we cannot identify the date of the first commercial sale or any related patents covering or regulatory exclusivity periods with respect to such licensed product.

Under the original terms of the 2014 clinical trial collaboration agreement, BMS paid us an upfront fee of $30.0 million in December 2014. At that time, the $30.0 million upfront fee was contingently refundable. Since the upfront fee was not considered to be fixed or determinable, we recorded it as deferred revenue. Upon signing the cabiralizumab collaboration agreement, the $30.0 million upfront fee was no longer refundable. Accordingly, we began recognizing revenue ratably, using a cumulative catch up method, over the estimated performance period through 2019. During 2016, we recognized $14.4 million of revenue under the cabiralizumab collaboration agreement, including $8.5 million of revenue for research funding. As of December 31, 2016, we had deferred revenue of $17.7 million related to the cabiralizumab collaboration agreement. We expect to recognize ratable revenue of $5.9 million in each of 2017, 2018 and 2019.

BMS Immuno-Oncology Research Collaboration

In March 2014, we entered into a research collaboration and license agreement, or the immuno-oncology research collaboration with BMS. The initial three-year research term of the immuno-oncology research collaboration will end in March 2017. In December 2016, BMS exercised its option to extend the research term for an additional year to March 2018. BMS has an option to extend the research term for one additional year.

We received an upfront payment of $20.0 million in April 2014 in connection with our entry into the immuno-oncology research collaboration. Through December 31, 2016, we received $9.0 million of research funding and we are eligible to receive up to an additional $2.5 million of research funding under this collaboration through the remainder of the extension term, which ends in March 2018, based on the research activities currently planned under the research plan.

We are eligible to receive up to $240.0 million per collaboration target in specified developmental, regulatory and commercialization contingent payments. These payments are comprised of aggregate developmental contingent payments of up to $53.0 million, aggregate regulatory contingent payments of up to $74.0 million and aggregate commercialization contingent payments of up to $113.0 million. We are also eligible to receive up to $60.0 million in sales-based contingent payments per collaboration product.

In connection with the immuno-oncology research collaboration, BMS purchased 994,352 shares of our common stock at a price per share of $21.16, for an aggregate purchase price of $21.0 million. We determined that the purchase price of $21.16 per share exceeded the fair value of our common stock by $2.4 million and, therefore, recorded the $2.4 million as deferred revenue, which is recognized in the same manner as the $20.0 million upfront payment and allocated to the deliverables under the collaboration.

During 2016, we recognized $7.7 million of revenue under the immuno-oncology research collaboration, including $3.3 million of research funding. As of December 31, 2016, we had deferred revenue relating to the immuno-oncology research collaboration of $10.6 million. We expect to recognize ratable revenue of $5.1 million, $4.6 million, and $0.9 million in 2017, 2018, and 2019, respectively.

GSK Respiratory Diseases Collaboration

In April 2012, we entered into research collaboration and license agreement, or the respiratory diseases collaboration with GSK to identify new therapeutic approaches to treat refractory asthma and chronic obstructive pulmonary disease, or COPD, function with a particular focus on identifying novel protein therapeutics and antibody targets. We conducted six customized cell-based screens of our protein library under this agreement. Under the terms of the agreement, GSK paid us an upfront technology access payment of $7.5 million at the inception of the respiratory diseases collaboration. In addition, GSK agreed to pay us $10.5 million of research funding over the research program term.

Pursuant to the respiratory diseases collaboration, GSK exercised its option to expand the research plan to include two additional screening assays. We received $2.0 million in additional research funding for the two additional screening assays as of December 31, 2015.

In January 2016, we amended our respiratory diseases collaboration to extend the research term by three months to July 2016 to allow additional validation of the protein targets we discovered and to increase the research funding by $0.7 million that GSK was obligated to pay us under our collaboration. Such funding was fully received as of December 31, 2016.

We are eligible to receive certain option and selection payments, payments for the achievement of certain development activities, and royalties on the sales of products related to targets GSK selects for exclusive development, if any.

We are eligible to receive up to $124.3 million in potential target evaluation and selection fees and contingent payments with respect to each protein target for which GSK will have sole responsibility for the further development and commercialization of products that incorporate or target such protein target, or a track 1 target. GSK is also obligated to pay us tiered low- to mid-single digit royalties on global net sales for each product that incorporates or targets each such track 1 target. We are eligible to receive up to $193.8 million in potential target evaluation and selection fees and contingent payments with respect to each protein target for which we will develop biologics that incorporate or target the protein targets through to clinical proof of mechanism in either a phase 1 clinical trial or a phase 2 clinical trial, or a track 2 target. GSK is also obligated to pay us tiered high-single to low-double digit royalties on global net sales for each product that incorporates or targets each such track 2 target.

Through December 31, 2016, we received $14.3 million of research funding. During 2016, we recognized $5.0 million of revenue under the respiratory diseases collaboration, including $1.8 million received from target and selection fees and $2.4 million for research funding. We fully recognized the deferred revenue in 2016 following the completion of our obligation to provide research services.

FP-1039 License and Collaboration with GSK

In March 2011, we entered into a license and collaboration agreement with Human Genome Sciences, Inc., which was acquired by GSK, or the FP-1039 license.

We received an upfront payment of $50.0 million from GSK in connection with our entry into the FP-1039 license. In addition, GSK was obligated to pay us for the costs of all FP-1039 related research and development activities we elected to undertake on behalf of GSK. Since our entry into the FP-1039 license, GSK has paid us $3.5 million for our conduct of these activities.

In March 2016, GSK delivered to us written notice of termination of the FP-1039 license. Pursuant to the terms of the FP-1039 license, such termination became effective on September 5, 2016, which was 180 days after GSK's notice of termination. Pursuant to the terms of the FP-1039 license, we elected to have GSK complete the conduct of the Phase 1b clinical trial of FP-1039, at GSK's expense.

GSK Muscle Diseases Collaboration

In July 2010, we entered into a research collaboration and license agreement, or the muscle diseases collaboration, with GSK. In May 2011, we amended the muscle diseases collaboration to expand the research plan in scope and duration to include an additional cell-based screen and an *in vivo* screen.

At the inception of the muscle diseases collaboration, GSK made an upfront payment to us of $7.0 million and purchased shares of our Series A-2 convertible preferred stock for $7.5 million, of which we considered $3.0 million to be an implied premium. The implied premium was accounted for as revenue in the same manner as the upfront payment, both to be recognized over the initial three-year research period, and allocated to the deliverables under the research collaboration and license agreement. Through December 31, 2014, we received $9.9 million in research funding under this agreement, the research term of which ended in May 2014. The deferred revenue related to this agreement was fully recognized in 2014 as we completed our obligation to provide research services.

In September 2014, GSK exercised its option under the muscle diseases collaboration to obtain an exclusive, worldwide license to an undisclosed muscle disease target that we identified using our proprietary target discovery platform and paid us a $1.5 million fee. In addition, we are entitled to receive up to $122.5 million in milestone payments as well as royalties on net sales of products related to the target. The milestone payments consist of preclinical and development-related contingent payments of up to $28.5 million, regulatory-related contingent payments of up to $40.0 million and commercial-related contingent payments of up to $54.0 million. GSK is also obligated to pay us tiered low to mid-single digit royalties on global net sales for each product that incorporates or targets the protein.

UCB Fibrosis and CNS Collaboration

In March 2013, we entered into a research collaboration and license agreement, or the fibrosis and CNS collaboration. The research term of the fibrosis and CNS collaboration ended in March 2016.

We are eligible to receive up to $92.2 million in potential evaluation and selection fees and contingent payments with respect to each protein target for which UCB elects to obtain an exclusive license, comprising aggregate target evaluation and selection fees of up to $0.4 million, preclinical and development-related contingent payments of up to $11.8 million, regulatory-related contingent payments of up to $20.0 million and commercial-related contingent payments of up to $60.0 million. UCB is also obligated to pay us tiered low- to mid-single digit royalties on global net sales for each product that incorporates or targets the protein. During 2016, we received $0.4 million in target evaluation and selection fees.

At the inception of the fibrosis and CNS collaboration, UCB made an upfront payment to us of $6.0 million and agreed to pay us $6.6 million for technology fees and $2.0 million for research funding. As of December 31, 2015, we fully collected on the technology access fees and research funding under the fibrosis and CNS collaboration. During 2016, we recognized $3.5 million of revenue under the fibrosis and CNS collaboration. As of December 31, 2016, we had deferred revenue of $3.7 million related to this agreement. We expect to recognize revenue of $3.0 million and $0.7 million in 2017 and 2018, respectively.

Our initial research activities under this agreement were completed in March 2016. Upon the completion of those research activities, UCB has up to a two-year evaluation period during which we may be obligated to perform additional services at the request of UCB.

bluebird bio, Inc. License Agreement

In May 2015, we entered into an exclusive license agreement, referred to as the bluebird license agreement, with bluebird bio, Inc., or bluebird, under which we licensed to bluebird human antibodies to an undisclosed cancer target to research, develop and commercialize chimeric antigen receptor (CAR) T cell therapies using such antibodies. Under the bluebird license agreement, bluebird paid us a $1.5 million upfront fee in 2015.

There are no other deliverables under the agreement other than the license grant. We recognized the $1.5 million upfront fee as revenue upon delivery of the license grant, which was completed in 2015.

In January 2017, bluebird delivered to us written notice of termination of the license agreement. Pursuant to the terms of the license agreement, termination will become effective on May 17, 2017, which is 120 days after bluebird's notice of termination. Following termination, bluebird will have no future payment obligations to us in connection with the license agreement.

Research and Development

Research and development expenses consist of costs we incur in performing internal and collaborative research and development activities. Expenses incurred related to collaborative research and development agreements generally approximate the revenue recognized under these agreements. Research and development costs consist of salaries and benefits, including associated stock-based compensation, lab supplies and facility costs, as well as fees paid to other entities that conduct certain research and development activities, including manufacturing, on our behalf.

We are conducting research and development activities on several disease targets and product candidates.

We have a research and development team that designs, manages and evaluates the results of all of our research and development activities. We conduct most of our core target discovery and early research and preclinical activities internally and rely more heavily on third parties, such as clinical research organizations, or CROs, and clinical manufacturing organizations, or CMOs, for the execution of our IND-enabling and development activities, such as GLP toxicology studies, drug substance and drug product manufacturing and the conduct of our clinical trials. We account for research and development costs on a program-by-program basis. In the early phases of research and discovery, our costs are often related to conducting target screening, evaluation and validation activities and conducting research activities with respect to selected targets and target pathways and are not necessarily allocable to a specific program. We assign costs for such activities to a distinct non-program related project code. We allocate research and development management, overhead, common usage laboratory supplies and facility costs on a full-time equivalent basis.

The following is a comparison of research and development expenses for the years ended December 31, 2016, 2015 and 2014:

(in millions)	Year Ended December 31, 2016	2015	2014
Development programs:			
Cabiralizumab	$ 19.9	$ 18.8	$ 8.3
FPA144	21.9	7.8	11.6
FP-1039	0.3	0.2	0.5
Subtotal development programs	42.1	26.8	20.4
Preclinical programs	18.3	12.9	0.4
Discovery collaborations	8.1	17.9	13.8
Early research and discovery	25.6	12.6	8.6
Total research and development expenses	$ 94.1	$ 70.2	$ 43.2

We expect that most of the research and development expenses we incur will continue to relate to activities to support our cabiralizumab and FPA144 development programs and our immuno-oncology preclinical, research and discovery efforts. We expect our research and development expenses to increase as we advance our current product candidates through clinical development and additional product candidates into preclinical and clinical development, in particular as we increase the number and size of our clinical trials and as we expand our internal immuno-oncology preclinical, research and discovery efforts. We expect that our cabiralizumab and FPA144 development-related expenses will increase at a faster rate than our other internal program research and development expenses as we advance cabiralizumab through the Phase 2 clinical trial in PVNS and the Phase 1a/1b clinical trial in multiple cancers, and as we advance FPA144 in the Phase 1 clinical trial in gastric and bladder cancers, initiate our Phase 1 clinical trial in Japan and initiate our Phase 1b trial to evaluate FPA144 in combination with standard of care chemotherapy. We expect our preclinical program expenses to continue to increase as we initiate additional therapeutic molecule campaigns and advance our preclinical programs into and through IND-enabling studies. We expect our discovery collaboration expenses to continue to decline in 2017 due to the completion of the research terms of our respiratory diseases collaboration with GSK and our fibrosis and CNS collaboration with UCB in 2016.

The process of conducting preclinical studies and clinical trials necessary to obtain regulatory approval is costly and time-consuming. We or our partners may never succeed in achieving marketing approval for any of our drug candidates. Numerous factors may affect the probability of success for each drug candidate, including preclinical data, clinical data, competition, manufacturing capability and commercial viability.

The successful development of our drug candidates is highly uncertain and may not result in approved products. Completion dates and completion costs can vary significantly for each drug candidate and are difficult to predict for each product. Given the uncertainty associated with clinical trial enrollments and the risks inherent in the development process, we are unable to determine the duration and completion costs of the current or future clinical trials of our drug candidates or if, or to what extent, we will generate revenues from the commercialization and sale of any of our drug candidates. We anticipate we will make determinations as to which programs to pursue and how much funding to direct to each program on an ongoing basis in response to the outcome of research, nonclinical and clinical activities of each drug candidate, as well as ongoing assessments as to each drug candidate's commercial potential. We will need to raise additional capital or may seek additional product collaborations in the future in order to complete the development and commercialization of our drug candidates.

General and Administrative

General and administrative expenses consist primarily of salaries and related benefits, including associated stock-based compensation, related to our executive, finance, legal, business development, human resource and support functions. Other general and administrative expenses include allocated facility-related costs not otherwise included in research and development expenses, travel expenses and professional fees for auditing, tax and legal services, including intellectual property-related legal services.

We expect our general and administrative expenses to increase due to expanded operations to support our increased research and development activities, increased stock-based compensation, and increased facility costs as a result of relocating to a larger facility. Also, we expect our intellectual property-related legal expenses, including those related to preparing, filing and prosecuting patent applications and maintaining patents, to increase as our intellectual property portfolio expands.

Interest Income

Interest income consists of interest income earned on our cash and cash equivalents and marketable securities.

Other (Expense) Income, Net

Other (expense) income, net consists primarily of the gain or loss on the disposal of property and equipment, if any.

Results of Operations

Comparison for the Years Ended December 31, 2016 and 2015

	Year Ended December 31,	
(in millions)	**2016**	**2015**
Collaboration and license revenue	$ 30.7	$ 379.8
Operating expenses:		
Research and development	94.1	70.2
General and administrative	35.8	22.6
Total operating expenses	129.9	92.8
Interest income	2.5	0.5
Income (loss) before income tax	(96.7)	287.5
Income tax benefit (provision)	31.0	(37.8)
Net income (loss)	$ (65.7)	$ 249.6

Collaboration and License Revenue

Collaboration and license revenue decreased by $349.1 million, or 91.9%, to $30.7 million in 2016 from $379.8 million in 2015. This decrease was primarily due to the $350.0 million upfront payment we received in 2015 from BMS under our cabiralizumab collaboration with BMS that we entered into in October 2015.

Research and Development

Our research and development expenses increased by $23.9 million, or 34.0%, to $94.1 million in 2016 from $70.2 million in 2015. This increase was primarily due to a $14.1 million increase related to advancing FPA144 through our Phase 1 clinical trial, a $13.0 million increase in early research and discovery expenses to discover and validate immuno-oncology targets and generate and select new therapeutic candidates and a $5.4 million increase in preclinical program expenses to advance selected therapeutic candidates into IND-enabling activities, which was offset by a $9.8 million decrease in our discovery collaboration costs.

General and Administrative

Our general and administrative expenses increased by $13.2 million, or 58.4%, to $35.8 million in 2016 from $22.6 million in 2015, primarily due to an $11.9 million increase in payroll and stock-based compensation costs.

Income Tax Benefit (Provision)

We recognized a tax benefit of $31.0 million in 2016. Our provision for income taxes was $37.8 million in 2015 due to taxable income generated in 2015. After the carryback of our 2016 net operating losses to 2015, we have maximized our ability to obtain a refund of prior income taxes paid. The resulting amount of income tax for the 2015 period, after the carryback, relates to minimum taxes.

Comparison of the Years Ended December 31, 2015 and 2014

	Year Ended December 31,	
(in millions)	**2015**	**2014**
Collaboration and license revenue	$ 379.8	$ 19.2
Operating expenses:		
Research and development	70.2	43.2
General and administrative	22.6	13.6
Total operating expenses	92.8	56.8
Interest income	0.5	0.2
Other expense, net	—	(0.1)
Income (loss) before income tax	287.5	(37.4)
Income tax benefit (provision)	(37.8)	—
Net income (loss)	$ 249.6	$ (37.4)

Collaboration and License Revenue

Collaboration and license revenue increased by $360.6 million, or 1,878.1%, to $379.8 million in 2015 from $19.2 million in 2014. This increase was primarily due to the $350.0 million upfront payment we received from BMS under our cabiralizumab collaboration with BMS that we entered into in October 2015, $6.4 million in ratable revenue recognized related to the $30.0 million upfront payment we received from BMS under our clinical trial collaboration with BMS that we entered into in November 2014, which was superseded by the cabiralizumab collaboration, $3.5 million in revenue for performing clinical trial activities under the cabiralizumab collaboration, $1.5 million in revenue recognized under our license agreement with bluebird that we entered into in May 2015, a $1.0 million increase in revenue recognized under our immuno-oncology research collaboration with BMS that we entered into in March 2014, a $0.9 million increase in revenue recognized under our respiratory diseases collaboration with GSK, and a $0.8 million increase in revenue recognized under our fibrosis and CNS collaboration with UCB, which was offset primarily by a $3.4 million decrease in revenue from our muscle diseases collaboration with GSK, the research term of which ended in 2014.

Research and Development

Our research and development expenses increased by $27.0 million, or 62.5%, to $70.2 million in 2015 from $43.2 million in 2014. This increase was primarily due to a $10.5 million increase related to advancing cabiralizumab into our Phase 1/2 clinical trial in PVNS and our Phase 1a/1b clinical trial in immuno-oncology, a $12.5 million increase in preclinical program expenses related to our antibody campaigns, advancing our preclinical programs and incurring $8.0 million in expense related to obtaining a license to Inhibrix's GITR antibodies, a $4.0 million increase in early research and discovery expenses related to expanding our immuno-oncology efforts and antibody campaigns, and a $4.1 million increase in our discovery collaboration costs due to our entry into the immuno-oncology research collaboration, which was offset by a decrease of $3.8 million in costs related to our FPA144 program, primarily due to preclinical and manufacturing costs incurred in 2014 to prepare for the Phase 1 clinical trial and a milestone payment we made to Galaxy Biotech in connection with the initiation of our Phase 1 clinical trial.

General and Administrative

Our general and administrative expenses increased by $9.0 million, or 66.2%, to $22.6 million in 2015 from $13.6 million in 2014, primarily due to a $5.6 million increase in cash and stock-based compensation costs, a $1.5 million increase in facilities costs due to leasing the remaining portion of our leased premises, and a $1.1 million increase in recruiting related to expansion of our operations.

Income Tax Benefit (Provision)

Our provision for income tax increased to $37.8 million in 2015 from $0 in 2014, due to taxable income generated in 2015, which reflects an effective tax rate of 13.2% and 0% for 2015 and 2014, respectively. In 2015, we utilized substantially all of our federal and state NOL and research credit carryforwards to reduce income tax in 2015.

Liquidity and Capital Resources

As of December 31, 2016, we had $421.7 million in cash and cash equivalents and marketable securities invested in a U.S. Treasury money market fund and U.S. Treasury securities with maturities of 13 months or less.

In addition to our existing cash and cash equivalents, we are eligible to receive research and development funding and to earn milestone and other contingent payments for the achievement of defined collaboration objectives and certain nonclinical, clinical, regulatory and sales-based events and royalty payments under our collaboration agreements. Our ability to earn these milestone and contingent payments and the timing of these milestones is primarily dependent upon the outcome of our collaborators' and licensees' research and development activities and is uncertain at this time. Our rights to payment under our collaboration and license agreements are our only committed external sources of funds.

Funding Requirements

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third party clinical and preclinical research and development services, including clinical trial, manufacturing, laboratory and related supplies, legal, patent and other regulatory expenses and general overhead costs. We believe our use of CROs and CMOs provides us with flexibility in managing our spending and limits our cost commitments at any point in time.

Because our product candidates are in various stages of clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates or whether, or when, we may achieve profitability. Until such time, if ever, that we can generate substantial product revenues, we expect to finance our cash needs primarily through equity financings and collaboration and licensing arrangements. Except for any obligations of our collaborators to reimburse us for research and development expenses or to make milestone or royalty payments under our agreements with them, we will not have any committed external sources of liquidity. To the extent that we raise additional capital through the future sale of equity or debt, the ownership interests of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our existing stockholders. If we raise additional funds through collaboration or licensing arrangements in the future, we may have to relinquish valuable rights to our technologies, future revenue streams or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Based on our research and development plans and our timing expectations related to the progress of our programs, we expect that our existing cash and cash equivalents and marketable securities as of December 31, 2016 will enable us to fund our operating expenses and capital expenditure requirements for at least the next twelve months.

Cash Flows

The following is a summary of cash flows for the years ended December 31, 2016, 2015 and 2014:

	Year Ended December 31,		
(in millions)	**2016**	**2015**	**2014**
Net cash provided by (used in) operating activities	$ (79.8)	$ 289.1	$ 15.3
Net cash used in investing activities	(53.7)	(238.2)	(69.4)
Net cash provided by (used in) financing activities	(8.9)	83.8	61.2

Net Cash Provided by (Used in) Operating Activities

Net cash used in operating activities was $79.8 million during the year ended December 31, 2016. The net loss of $65.7 million was offset by non-cash charges of $32.9 million for stock-based compensation expense, $15.1 million for deferred income taxes, $4.2 million for amortization of premium on marketable securities and $1.7 million for depreciation and amortization. The net change in operating assets and liabilities was $71.1 million, which is primarily due to a $52.8 million decrease in income tax payable and a $16.8 million decrease in deferred revenue from the recognition of revenue in the current period for cash received from collaboration partners in prior periods.

Net cash provided by operating activities was $289.1 million during the year ended December 31, 2015. Primarily due to the $350.0 million upfront payment from BMS for the cabiralizumab collaboration, we had net income of $249.6 million. Non-cash charges were $1.7 million for depreciation and amortization, $11.5 million for stock-based compensation expense, $2.0 million for amortization of premium on marketable securities, $3.1 million from excess tax benefits from employee equity incentive plans and $15.1 million in deferred income taxes. The net change in operating assets and liabilities was $36.2 million, which is primarily due to income taxes payable.

Net cash provided by operating activities was $15.3 million during the year ended December 31, 2014. The net loss of $37.4 million was offset by non-cash charges of $1.6 million for depreciation and amortization, $3.4 million for stock-based compensation expense, and $1.5 million for amortization of premium on marketable securities. The net change in operating assets and liabilities was $46.2 million, primarily due to $45.5 million of deferred revenue primarily related to the $20.0 million upfront fee we received in April 2014 from our entry into the immuno-oncology research collaboration with BMS and the $30.0 million one-time fee we received in December 2014 from our entry into the clinical trial collaboration with BMS.

Net Cash Used in Investing Activities

Net cash provided by or used in investing activities for the periods presented primarily relates to the purchases and maturities of marketable securities. Net cash used in investing activities in 2016 decreased primarily due to the increased maturities of marketable securities that offset the purchases of such marketable securities. Purchases of property and equipment was $3.0 million, $2.4 million and $1.6 million during the years ended December 31, 2016, 2015 and 2014, respectively. The property and equipment purchases consisted primarily of purchases of laboratory equipment to support our research and development activities. We expect a significant increase in our capital expenditures in 2017 due to our planned move into new office and laboratory facilities in the fourth quarter of 2017, which will be partially funded through a tenant improvement allowance from our landlord.

Net Cash Provided by (Used in) Financing Activities

Net cash used in financing activities was $8.9 million during the year ended December 31, 2016, primarily related to $14.1 million paid to satisfy tax withholding obligations from the net share issuance of restricted stock awards and $3.1 million from excess tax benefits from employee equity incentive plans, offset by $8.3 million received from employee stock option exercises and employee stock purchases in 2016.

Net cash provided by financing activities was $83.8 million during the year ended December 31, 2015, primarily related to the net proceeds of $78.7 million from our 2015 underwritten public offering. Additionally, we received $5.1 million from employee stock option exercises and employee stock purchases in 2015.

Net cash provided by financing activities was $61.2 million during the year ended December 31, 2014, primarily related to the net proceeds of $40.1 million from our underwritten public offering of our common stock in February 2014 and BMS's purchase in March 2014 of 994,352 shares of our common stock at a price of $21.16 per share, for an aggregate purchase price of $21.0 million, in connection with the immuno-oncology research collaboration, of which $2.4 million was considered to be an implied premium and was allocated to the deliverables under the immuno-oncology research collaboration, resulting in $18.6 million being allocated to common stock. Additionally, we received $2.5 million from employee stock option exercises and stock purchases in 2014.

Contractual Obligations and Contingent Liabilities

The following table summarizes our significant contractual obligations as of December 31, 2016:

(in millions) **Contractual Obligations**	**Total**	**Less Than 1 Year**	**1 to 3 Years**	**3 to 5 Years**	**More Than 5 Years**
Operating leases (1)	$ 81,393	$ 3,461	$ 12,117	$ 14,798	$ 51,017
Total obligations	$ 81,393	$ 3,461	$ 12,117	$ 14,798	$ 51,017

(1) Represents future minimum lease payments under non-cancelable operating leases in effect as of December 31, 2016 for our facilities in South San Francisco, California. The minimum lease payments above do not include common area maintenance charges or real estate taxes.

The contractual obligations table above does not include any potential future milestone payments to third parties as part of certain collaboration and in-licensing agreements, which could total up to $556.8 million, or any potential future royalty payments we may be required to make under our license agreements, including with:

- Galaxy, under which we were granted an exclusive worldwide license for the development, manufacturing and commercialization of anti-FGFR2b antibodies;
- The Regents of the University of California, under which we were granted an exclusive license under certain patent rights related to our FP-1039 program;
- BioWa-Lonza, under which we were granted a non-exclusive license to use their Potelligent ® CHOK1SV technology, including the CHOK1SV cell line, and a non-exclusive license to related know-how and patents; and
- Inhibrx, under which we were granted an exclusive worldwide license to antibodies to GITR for therapeutic and diagnostic uses and an exclusive option to obtain exclusive, worldwide licenses to multi-specific antibodies developed by Inhibrx that bind to both GITR and other targets.

Payments under these agreements are not included in the above contractual obligations table due to the uncertainty of the occurrence of the events requiring payment under these agreements, including our share of potential future milestone and royalty payments. These payments generally become due and payable only upon achievement of certain clinical development, regulatory or commercial milestones.

Off-Balance Sheet Arrangements

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

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The market risk inherent in our financial instruments and in our financial position reflects the potential losses arising from adverse changes in interest rates and concentration of credit risk. As of December 31, 2016 and 2015, we had cash and cash equivalents and marketable securities of $421.7 million and $517.5 million, respectively, consisting of bank deposits, interest-bearing money market accounts and U.S. treasuries. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. As of December 31, 2016, our cash equivalents and marketable securities have an average maturity of approximately 4 months and the longest maturity is 13 months. Due to the short term duration and the lower risk profile of our marketable securities, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our cash equivalents and marketable securities. We have the ability to hold our marketable securities until maturity, and we therefore do not expect a change in market interest rates to affect our operating results or cash flows to any significant degree.

Item 8. Financial Statements and Supplementary Data.

The financial statements required by this item are set forth beginning on page F-1 of this Annual Report on Form 10-K.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As of December 31, 2016, management, with the participation of our disclosure committee, performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including the Chief Executive Officer and the Chief Financial Officer, to allow timely decisions regarding required disclosures.

Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objective. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2016, the design and operation of our disclosure controls and procedures were effective.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles, or GAAP. Our internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2016 based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) , or COSO. Based on our evaluation under the criteria set forth in Internal Control - Integrated Framework issued by the COSO, our management concluded our internal control over financial reporting was effective as of December 31, 2016.

Our independent registered public accounting firm, Ernst & Young LLP, audited the effectiveness of our internal control over financial reporting. Ernst & Young LLP has issued their attestation report which is included herein.

Changes in Internal Control over Financial Reporting.

There have been no significant changes in our internal control over financial reporting during our most recent fiscal quarter that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and
Stockholders of Five Prime Therapeutics, Inc.

We have audited Five Prime Therapeutics, Inc. (the "Company") internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Five Prime Therapeutics, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Five Prime Therapeutics, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheets of Five Prime Therapeutics, Inc. as of December 31, 2016 and 2015, and the related statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2016, and our report dated February 24, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Jose, California
February 24, 2017

Item 9B. Othe r Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item is incorporated by reference to the information set forth in the sections titled “Information About Our Board of Directors” and “Information About Our Executive Officers Who Are Not Directors,” “Corporate Governance,” “Corporate Governance – Code of Business Conduct and Ethics,” “Section 16(a) Beneficial Ownership Reporting Compliance,” “Corporate Governance – Committees of the Board of Directors – Nominating and Corporate Governance Committee,” “Corporate Governance – Committees of the Board of Directors – Audit Committee” and “Corporate Governance – Committees of the Board of Directors – Compensation Committee” in our Proxy Statement.

Item 11. Executive Compensation.

The information required by this item is incorporated by reference to the information set forth in the sections titled “Executive Compensation,” “Director Compensation” and “Committees of the Board of Directors — Compensation Committee Interlocks and Insider Participation” in our Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item is incorporated by reference to the information set forth in the sections titled “Securities Authorized For Issuance Under Equity Compensation Plans” and “Security Ownership of Certain Beneficial Owners and Management” in our Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this item is incorporated by reference to the information set forth in the sections titled “Corporate Governance – Board of Directors Independence” and “Transactions With Related Persons” in our Proxy Statement.

Item 14. Principal Accountant Fees and Services.

The information required by this item is incorporated by reference to the information set forth in the sections titled “Independent Registered Public Accounting Firm Fees and Services” in our Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

The financial statements schedules and exhibits filed as part of this Annual Report on Form 10-K are as follows:

(a)(1) Financial Statements

Reference is made to the financial statements included in Item 8 of Part II hereof.

(a)(2) Financial Statement Schedules

All other schedules are omitted because they are not required or the required information is included in the financial statements or notes thereto.

(a)(3) Exhibits

The exhibits required to be filed as part of this report are listed in the Exhibit List attached hereto and are incorporated herein by reference.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Five Prime Therapeutics, Inc.
(Registrant)

Date: February 24, 2017

/s/ Lewis T. Williams
Lewis T. Williams
President and Chief Executive Officer
(Principal Executive Officer)

Date: February 24, 2017

/s/ Marc L. Belsky
Marc L. Belsky
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Lewis T. Williams and Francis W. Sarena, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Lewis T. Williams, M.D., Ph.D. **Lewis T. Williams, M.D., Ph.D.**	Chief Executive Officer, President and Chairman of the Board (Principal Executive Officer)	February 24, 2017
/s/ Marc. L. Belsky **Marc L. Belsky**	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	February 24, 2017
Franklin M. Berger	Director	
/s/ Fred E. Cohen, M.D., D.Phil. **Fred E. Cohen, M.D., D.Phil .**	Director	February 24, 2017

Signature	Title	Date
/s/ Kapil Dhingra, M.B.B.S. **Kapil Dhingra, M.B.B.S.**	Director	February 24, 2017
/s/ Robert L. Douglas **Robert L. Douglas**	Director	February 24, 2017
/s/ Sheila Gujrathi, M.D. **Sheila Gujrathi, M.D.**	Director	February 24, 2017
/s/ Peder K. Jensen, M.D. **Peder K. Jensen, M.D.**	Director	February 24, 2017
/s/ Aron Knickerbocker **Aron Knickerbocker**	Chief Operating Officer and Director	February 24, 2017
/s/ Mark McDade **Mark McDade**	Director	February 24, 2017
/s/ William Ringo **William Ringo**	Director	February 24, 2017

FIVE PRIME THERAPEUTICS, INC.
FINANCIAL STATEMENTS
YEARS ENDED DECEMBER 31, 2016, 2015 AND 2014

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and
Stockholders of Five Prime Therapeutics, Inc.

We have audited the accompanying balance sheets of Five Prime Therapeutics, Inc. (the "Company") as of December 31, 2016 and 2015, and the related statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company at December 31, 2016 and 2015, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Five Prime Therapeutics, Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 24, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Jose, California
February 24, 2017

FIVE PRIME THERAPEUTICS, INC.

Balance Sheets
(In thousands, except share and per share amounts)

	December 31,	
	2016	**2015**
Assets		
Current assets:		
Cash and cash equivalents	$ 7,653	$ 149,971
Marketable securities	414,095	367,495
Receivable from collaborative partners	3,959	4,054
Income tax receivable	4,670	—
Prepaid and other current assets	9,748	6,761
Total current assets	440,125	528,281
Restricted cash	1,543	—
Property and equipment, net	6,207	4,539
Deferred tax asset	—	15,071
Other long-term assets	406	394
Total assets	$ 448,281	$ 548,285
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 334	$ 1,894
Accrued personnel-related expenses	7,957	6,878
Other accrued liabilities	15,435	5,882
Deferred revenue, current portion	14,150	17,509
Deferred rent, current portion	865	768
Income tax payable, current portion	—	46,437
Total current liabilities	38,741	79,368
Deferred revenue, long-term portion	17,856	31,268
Deferred rent, long-term portion	—	865
Income tax payable, long-term portion	—	3,283
Other long-term liabilities	109	295
Commitments and Contingencies (Note 12)		
Stockholders' equity:		
Common stock, $0.001 par value; 100,000,000 shares authorized, 28,550,006 issued and 27,509,077 outstanding at December 31, 2016. 27,691,756 issued and 26,116,886 outstanding at December 31, 2015.	27	26
Additional paid-in capital	396,635	372,605
Accumulated other comprehensive loss	(39)	(74)
Retained earnings (accumulated deficit)	(5,048)	60,649
Total stockholders' equity	391,575	433,206
Total liabilities and stockholders' equity	$ 448,281	$ 548,285

The accompanying notes are an integral part of these financial statements.

FIVE PRIME THERAPEUTICS, INC.

Statements of Operations
(In thousands except per share amounts)

	Year Ended December 31,		
	2016	**2015**	**2014**
Collaboration and license revenue	$ 30,691	$ 379,801	$ 19,231
Operating expenses:			
Research and development	94,072	70,197	43,173
General and administrative	35,831	22,631	13,632
Total operating expenses	129,903	92,828	56,805
Operating income (loss)	(99,212)	286,973	(37,574)
Interest income	2,467	487	210
Other expense, net	—	(3)	(60)
Income (loss) before income tax	(96,745)	287,457	(37,424)
Income tax benefit (provision)	31,048	(37,810)	—
Net income (loss)	$ (65,697)	$ 249,647	$ (37,424)
Net income (loss) per share attributable to common stockholders:			
Basic	$ (2.44)	$ 9.73	$ (1.79)
Diluted	$ (2.44)	$ 9.23	$ (1.79)
Weighted-average shares used to compute net income (loss) per share attributable to common stockholders:			
Basic	26,955	25,661	20,865
Diluted	26,955	27,035	20,865

The accompanying notes are an integral part of these financial statements.

FIVE PRIME THERAPEUTICS, INC.

Statements of Comprehensive Income (Loss)
(In thousands)

	Year Ended December 31,		
	2016	**2015**	**2014**
Net income (loss)	$ (65,697)	$ 249,647	$ (37,424)
Other comprehensive gain (loss):			
Unrealized gain (loss) on marketable securities, net of tax	35	(75)	(2)
Comprehensive income (loss)	$ (65,662)	$ 249,572	$ (37,426)

The accompanying notes are an integral part of these financial statements.

FIVE PRIME THERAPEUTICS, INC.

Statements of Stockholders' Equity
(In thousands, except share data)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings (Accumulated Deficit)	Total Stockholders' Equity
	Shares	Amount				
Balances at December 31, 2013	16,842,134	$ 17	$ 209,580	$ 3	$ (151,574)	$ 58,026
Issuance of common stock upon follow-on offering, net of issuance costs	3,450,000	3	40,096	—	—	40,099
Issuance of common stock in connection with immuno-oncology research collaboration	994,352	1	18,628	—	—	18,629
Issuance of common stock under equity incentive plans	393,240	1	2,458	—	—	2,459
Issuance of common stock upon automatic net exercise of warrant	768	—	—	—	—	—
Stock-based compensation expense	—	—	3,418	—	—	3,418
Other comprehensive loss	—	—	—	(2)	—	(2)
Net loss	—	—	—	—	(37,424)	(37,424)
Balances at December 31, 2014	21,680,494	22	274,180	1	(188,998)	85,205
Issuance of common stock upon follow-on offering, net of issuance costs	3,829,994	3	78,690	—	—	78,693
Issuance of common stock under equity incentive plans and related excess tax benefits	606,398	1	8,268	—	—	8,269
Stock-based compensation expense	—	—	11,467	—	—	11,467
Other comprehensive loss	—	—	—	(75)	—	(75)
Net income	—	—	—	—	249,647	249,647
Balances at December 31, 2015	26,116,886	26	372,605	(74)	60,649	433,206
Issuance of common stock under equity incentive plans and related excess tax benefits	1,730,340	1	5,199	—	—	5,200
Repurchase of shares to satisfy tax withholding obligations	(338,149)	—	(14,054)	—	—	(14,054)
Stock-based compensation expense	—	—	32,885	—	—	32,885
Other comprehensive gain	—	—	—	35	—	35
Net loss	—	—	—	—	(65,697)	(65,697)
Balances at December 31, 2016	27,509,077	$ 27	$ 396,635	$ (39)	$ (5,048)	$ 391,575

The accompanying notes are an integral part of these financial statements.

FIVE PRIME THERAPEUTICS, INC.

Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2016	**2015**	**2014**
Operating activities			
Net income (loss)	$ (65,697)	$ 249,647	$ (37,424)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization	1,742	1,678	1,552
Loss on disposal of property and equipment	9	3	41
Stock-based compensation expense	32,885	11,467	3,418
Amortization of premium on marketable securities	4,187	2,025	1,491
Excess tax benefits from employee equity incentive plans	3,123	3,122	—
Deferred income taxes	15,071	(15,071)	—
Changes in operating assets and liabilities:			
Receivable from collaborative partners	95	(3,644)	(114)
Income tax receivable	(4,670)	—	—
Prepaid, other current assets, and other long-term assets	(2,999)	(4,782)	(579)
Restricted cash	(1,543)	—	—
Accounts payable	(1,560)	798	701
Accrued personnel-related expenses	1,079	2,260	1,661
Deferred revenue	(16,771)	(11,789)	45,530
Deferred rent	(768)	(513)	(549)
Income tax payable	(52,843)	49,720	—
Other accrued liabilities and other long-term liabilities	8,909	4,177	(463)
Net cash provided by (used in) operating activities	(79,751)	289,098	15,265
Investing activities			
Purchases of marketable securities	(516,752)	(458,058)	(158,674)
Maturities of marketable securities	466,000	222,250	90,955
Purchases of property and equipment	(2,961)	(2,426)	(1,643)
Net cash used in investing activities	(53,713)	(238,234)	(69,362)
Financing activities			
Proceeds from issuances of common stock, net of issuance costs	—	78,693	58,728
Proceeds from issuances of common stock under equity incentive plans	8,323	5,147	2,459
Repurchase of shares to satisfy tax withholding	(14,054)	—	—
Excess tax benefits from employee equity incentive plans	(3,123)	—	—
Deferred offering costs	—	—	16
Net cash provided by (used in) financing activities	(8,854)	83,840	61,203
Net increase (decrease) in cash and cash equivalents	(142,318)	134,704	7,106
Cash and cash equivalents at beginning of year	149,971	15,267	8,161
Cash and cash equivalents at end of year	$ 7,653	$ 149,971	$ 15,267
Supplemental cash flow information			
Cash paid for income taxes	$ 11,433	$ —	$ —
Supplemental schedule of noncash investing and financing activities			
Unpaid property and equipment purchases included in accrued liabilities	$ 1,232	$ —	$ —
Accrued and deferred offering costs	$ —	$ —	$ 144

The accompanying notes are an integral part of these financial statements.

1. Business

Five Prime Therapeutics, Inc. (we, us, our, or the Company) is a clinical-stage biotechnology company focused on discovering and developing innovative protein therapeutics. We were incorporated in December 2001 in Delaware. Our operations are based in South San Francisco, California and we operate in one segment.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ materially from those estimates.

Cash and Cash Equivalents

We consider all highly liquid investments purchased with original maturities of three months or less at the date of purchase to be cash equivalents. Cash equivalents are stated at fair value.

Restricted Cash

Restricted cash consists of a certificate of deposit held by our bank as collateral for a standby letter of credit in the same notional amount by our landlord to secure our obligations under our corporate office and laboratory facility lease entered in December 2016. We are required to maintain this restricted cash balance for the duration of the lease, which amount is subject to reduction starting in the sixth year of the lease if certain conditions are met. See Note 13 for further discussion on our lease.

Marketable Securities

All marketable securities have been classified as “available-for-sale” and are carried at fair value, based upon quoted market prices. We consider our available-for-sale portfolio as available for use in current operations. Accordingly, we classify certain investments as short-term marketable securities, even though the stated maturity date may be one year or more beyond the current balance sheet date. Unrealized gains and losses, net of any related tax effects, are excluded from earnings and are included in other comprehensive income or loss and reported as a separate component of stockholders’ equity or deficit until realized. Realized gains and losses and declines in value judged to be other than temporary, if any, on available-for-sale securities are included in other income (expense), net. The cost of securities sold is based on the specific-identification method. We adjust the amortized cost of securities for amortization of premiums and accretion of discounts to maturity. We include interest on short-term investments in interest income. In accordance with our investment policy, management invests to diversify credit risk and only invests in debt securities with high credit quality, including U.S. government securities, and does not invest in mortgage-backed securities or mortgage loans.

We periodically evaluate whether declines in the fair value of our investments below their cost are other than temporary. The evaluation includes consideration of the cause of the impairment, including the creditworthiness of the security issuers, the number of securities in an unrealized loss position, the severity and duration of the unrealized losses, whether we have the intent to sell the securities, and whether it is more likely than not that we will be required to sell the securities before the recovery of their amortized cost basis. If we determine that the decline in fair value of an investment is below its accounting basis and this decline is other than temporary, we would reduce the carrying value of the security we hold and record a loss for the amount of such decline. We have not recorded any realized losses or declines in value judged to be other than temporary on our investments in debt securities.

Concentrations of Credit Risk

Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash and cash equivalents and marketable securities. Cash and cash equivalents and marketable securities are invested through banks and other financial institutions in the United States. Such deposits in the United States may be in excess of insured limits.

Fair Value of Financial Instruments

We determine the fair value of financial and nonfinancial assets and liabilities using the fair value hierarchy, which describes three levels of inputs that may be used to measure fair value, as follows:

Level 1 —Quoted prices in active markets for identical assets or liabilities;

Level 2 —Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. For our marketable securities, we review trading activity and pricing as of the measurement date. When sufficient quoted pricing for identical securities is not available, we use market pricing and other observable market inputs for similar securities obtained from various third-party data providers. These inputs either represent quoted prices for similar assets in active markets or have been derived from observable market data; and

Level 3 —Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

We determine the fair value of Level 1 assets using quoted prices in active markets for identical assets. We review trading activity and pricing for Level 2 investments as of each measurement date. Level 2 inputs, obtained from various third-party data providers, represent quoted prices for similar assets in active markets and were derived from observable market data, or, if not directly observable, were derived from or corroborated by other observable market data. There were no transfers between Level 1 and Level 2 securities in the periods presented. In certain cases where there is limited activity or less transparency around inputs to valuation, securities are classified as Level 3 within the valuation hierarchy.

The following table summarizes our financial instruments that were measured at fair value on a recurring basis by level of input within the fair value hierarchy defined above (in thousands):

	December 31, 2016			
		Basis of Fair Value Measurements		
	Total	Level 1	Level 2	Level 3
Assets				
Money market funds	$ 432	$ 432	$ —	$ —
U.S. Treasury securities	414,095	414,095	—	—
Certificate of deposit	1,543	—	1,543	—
Total	$ 416,070	$ 414,527	$ 1,543	$ —

	December 31, 2015			
		Basis of Fair Value Measurements		
	Total	Level 1	Level 2	Level 3
Assets				
Money market funds	$ 34,821	$ 34,821	$ —	$ —
U.S. Treasury securities	477,125	477,125	—	—
Total	$ 511,946	$ 511,946	$ —	$ —

Property and Equipment

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the assets, ranging from three to five years. Leasehold improvements are amortized over the shorter of their estimated useful lives or the related lease term.

Impairment of Long-Lived Assets

Long-lived assets include property and equipment. We review the carrying value of long-lived assets for impairment whenever events or changes in circumstances indicate that the assets may not be recoverable. We recognize an impairment loss when the total estimated future cash flows expected to result from the use of the asset and its eventual disposition are less than the carrying amount. Through December 31, 2016, there have been no such impairment losses.

Revenue Recognition

We recognize revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; transfer of technology has been completed or services have been rendered; our price to the customer is fixed or determinable, and collectability is reasonably assured.

The terms of our collaborative research and development agreements include upfront and license fees, research funding, milestone and other contingent payments to us for the achievement of defined collaboration objectives and certain preclinical, clinical, regulatory and sales-based events, as well as royalties on sales of any commercialized products.

Multiple-Element Revenue Arrangements. Our collaborations primarily represent multiple-element revenue arrangements. To account for these transactions, we determine the elements, or deliverables, included in the arrangement and determine which deliverables are separable for accounting purposes. We consider delivered items to be separable if the delivered items have stand-alone value to the customer. If the delivered items are separable, we allocate arrangement consideration to the various elements based on each element's relative selling price. The identification of individual elements in a multiple-element arrangement and the estimation of the selling price of each element involve significant judgment, including consideration as to whether each delivered element has standalone value to the customer. The revenue recognition standard established the hierarchy of determining the estimated selling price for deliverables within each agreement using vendor-specific objective evidence (VSOE) of selling price, if available, or third party evidence of selling price if VSOE is not available, or our best estimate of selling price, if neither VSOE nor third party evidence is available. Determining the best estimate of selling price for a deliverable requires significant judgment. We use our best estimate of selling price to estimate the selling price for licenses to our proprietary technology since the VSOE or third party evidence of selling price for these deliverables is not available.

We recognize consideration allocated to an individual element when all other revenue recognition criteria are met for that element. Our multiple-element revenue arrangements generally include the following:

- **Exclusive Licenses.** The deliverables under our collaboration agreements generally include exclusive licenses to discover, develop, manufacture and commercialize certain compounds. To account for this element of the arrangement, we evaluate whether the exclusive license has standalone value apart from the undelivered elements to the collaboration partner based on the consideration of the relevant facts and circumstances of each arrangement, including the research and development capabilities of the collaboration partner and other market participants. We recognize arrangement consideration allocated to licenses upon delivery of the license if facts and circumstances indicate that the license has standalone value apart from the undelivered elements, which generally include research and development services. If facts and circumstances indicate that the delivered license does not have standalone value from the undelivered elements, we recognize the revenue as a combined unit of accounting.

  We have determined that some of our exclusive licenses lack standalone value apart from the related research and development services. In those circumstances we recognize collaboration revenue from non-refundable upfront and license fees in the same manner as the undelivered item(s), which is generally the period over which we provide the research and development services. For circumstances in which upfront and license fees are contingently refundable, we defer the recognition of the upfront and license fees until such time that the consideration is considered to be fixed or determinable.

- **Research and Development Services.** The deliverables under our collaboration and license agreements generally include deliverables related to research and development services we perform on behalf of the collaboration partner. As the provision of research and development services is a part of our central operations and we are principally responsible for the performance of these services under the agreements, we recognize revenue on a gross basis for research and development services as we perform those services. Additionally, we recognize research funding related to collaborative research and development efforts as revenue as we perform or deliver the related services in accordance with contract terms as long as we will receive payment for such services upon standard payment terms.

Milestone Revenue . Our collaboration and license agreements generally include contingent payments and milestone payments related to specified research, development and regulatory milestones and sales-based milestones. Research, development and regulatory contingent payments and milestone payments are typically receivable under our collaborations when our collaborator claims or selects a target or initiates or advances a covered product candidate in preclinical or clinical development, upon submission for marketing approval of a covered product with regulatory authorities, upon receipt of actual marketing approvals of a covered product or for additional indications, or upon the first commercial sale of a covered product. Sales-based milestones are typically receivable when annual sales of a covered product reach specified levels.

At the inception of each arrangement that includes milestone payments, we evaluate whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. We evaluate factors such as the scientific, regulatory, commercial and other risks that we must overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment.

We have elected to adopt the Accounting Standards Codification (ASC) 605-28, *Revenue Recognition—Milestone Method* , such that we recognize any payment that is contingent upon the achievement of a substantive milestone entirely in the period in which the milestone is achieved. A milestone is defined as an event that can only be achieved based in whole or in part on either our performance or the occurrence of a specific outcome resulting from our performance for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved. Therefore, a milestone does not include events for which occurrence is contingent solely on the performance of a collaborative partner. To be substantive, a milestone must meet all the following criteria: the consideration receivable upon the achievement of the milestone is commensurate with either our performance after the agreement to achieve the milestone or the enhancement of value of delivered items as a result of a specific outcome resulting from our performance after the agreement to achieve the milestone, the consideration relates solely to past performance, and the consideration is reasonable relative to all of the deliverables and payment terms in the arrangement.

Research and Development Expenses

Research and development expenses consist of costs we incur for our own and for sponsored and collaborative research and development activities. Expenses we incur related to collaborative research and development agreements approximate the revenue recognized under these agreements. Research and development costs are expensed as incurred. Research and development costs consist of salaries and benefits, including associated stock-based compensation, laboratory supplies and facility costs, as well as fees paid to other entities that conduct certain research and development activities on our behalf. We estimate preclinical study and clinical trial expenses based on the services performed pursuant to contracts with research institutions, CROs, and CMOs that conduct and manage preclinical studies and clinical trials on our behalf based on actual time and expenses incurred by them. Further, we accrue expenses related to clinical trials based on the level of patient enrollment and activity according to the related agreement. We monitor patient enrollment levels and related activity to the extent reasonably possible and adjust estimates accordingly. If we do not identify costs that we have begun to incur or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates. To date, we have not experienced significant changes in our estimates of preclinical studies and clinical trial accruals.

We expense payments for the acquisition and development of technology as research and development costs if, at the time of payment, the technology: is under development; is not approved by the U.S. Food and Drug Administration or other regulatory agencies for marketing; has not reached technical feasibility; or otherwise has no foreseeable alternative future use.

Stock-Based Compensation

We recognize compensation expense using a fair-value-based method for costs related to all share-based payments, including restricted stock and stock options. For restricted stock awards, or RSAs, stock-based compensation cost related to employees and directors is based on the closing market value of our common stock at the date of grant and is recognized as expense ratably over the requisite service period. For stock option awards, stock-based compensation cost related to employees and directors is measured at the grant date, based on the fair-value-based measurement of the award estimated using the Black-Scholes option-pricing model, and is recognized as expense over the requisite service period on a straight-line basis. We are required to estimate forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. We use historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that we expect to vest.

Restricted stock awards granted to individual service providers who are not employees or directors are accounted for at fair value by remeasuring the cost based on the closing stock price at the end of that reporting period.

Options granted to individual service providers who are not employees or directors are accounted for at estimated fair value using the Black-Scholes option-pricing model and are subject to periodic remeasurement over the period during which the services are rendered.

Income Taxes

We account for income taxes using the liability method, under which deferred tax assets and liabilities are determined based on differences between financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Our income tax benefit for 2016 relates to our ability to carry back 2016 losses to the 2015 tax year and to obtain a refund of taxes paid related to a prior period. Valuation allowances are provided when the expected realization of the deferred tax assets does not meet the more-likely-than-not criteria. As a result, deferred tax assets at the end of 2016 are subject to a full valuation allowance. We are required to determine whether it is more likely than not that a tax position will be sustained upon examination by the appropriate taxing authorities before any part of the benefit can be recorded in the financial statements. It is our practice to recognize interest and penalties related to unrecognized tax benefits, if any, as a component of income tax expense.

Recently Issued Accounting Standards

In May 2014, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, 2014-09, *Revenue from Contracts with Customers: Topic 606* , to supersede nearly all existing revenue recognition guidance under GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 defines a five-step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than are required under existing GAAP, including identifying performance obligations in a contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. ASU 2014-09 is effective for us in our first quarter of fiscal 2018 using either of two methods: (i) retrospective application of ASU 2014-09 to each prior reporting period presented with the option to elect certain practical expedients as defined within ASU 2014-09; or (ii) retrospective application of ASU 2014-09 with the cumulative effect of initially applying ASU 2014-09 recognized at the date of initial application and providing certain additional disclosures as defined per ASU 2014-09. In March, April, May and December 2016, the FASB issued ASU 2016-08, *Revenue from Contracts with Customers: Principal versus Agent Considerations* , ASU 2016-10, *Revenue from Contracts with Customers: Identifying Performance Obligations and Licensing* , ASU 2016-12, *Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients to provide supplemental adoption guidance and clarification to ASU 2014-09* and ASU 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers* . The effective date for these new standards is the same as the effective date and transition requirements for ASU 2014-09. We expect to adopt ASU 2014-09 in the first quarter of 2018 using the modified retrospective method.

The adoption of ASU 2014-09 may have a material effect on our financial statements. To date, we have derived our revenues from license and collaboration agreements. The consideration we are eligible to receive under these agreements includes upfront payments, research and development funding, milestone payments and royalties. Each license and collaboration agreement is unique and will need to be assessed separately under the five-step process under the new standard. We have started our preliminary assessment of our active license and collaboration agreements. We expect that our evaluation of the accounting for collaboration agreements under the new revenue standard could identify material changes from the current accounting treatment. ASU 2014-09 differs from the current accounting standard in many respects, such as in the accounting for variable consideration, including milestone payments. Under our current accounting policy, we recognize milestone revenue using the milestone method specified in ASC 605-28, which generally results in the recognition of the milestone payment as revenue in the period that the milestone is achieved. However, under the new accounting standard, it is possible to start to recognize milestone revenue before the milestone is achieved, subject to management's assessment of whether it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. In addition, the current accounting standards include a presumption that revenue from up-front non-refundable fees would be recognized ratably over the performance period, unless another attribution method was determined to more closely approximate the delivery of the goods or services to the customer. The new accounting standard does not have a presumption that entities would default to a ratable attribution approach and will require entities to determine an appropriate attribution method using either output or input methods. As such, the amount and timing of revenue recognition for our license and collaboration agreements may change under the new revenue standard.

In February 2016, FASB issued ASU 2016-02, *Leases.* ASU 2016-2 is aimed at making leasing activities more transparent and comparable and requires substantially all leases be recognized by lessees on their balance sheet as a right-of-use asset and corresponding lease liability, including leases currently accounted for as operating leases. ASU 2016-02 is effective for our interim and annual reporting periods during the year ending December 31, 2019 and all annual and interim reporting periods thereafter. E arly adoption is permitted. Under the new standard, we expect to record a right to use lease asset and a lease liability on our balance sheet. Under the new standard, we expect to recognize expense on our statement of operations in a manner similar to the current accounting standard.

In March 2016, FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting* . This standard makes several modifications to Topic 718 related to the accounting for forfeitures, employer tax withholding on share-based compensation and the financial statement presentation of excess tax benefits or deficiencies. ASU 2016-09 also clarifies the statement of cash flows presentation for certain components of share-based awards. The guidance will be effective for annual reporting periods beginning after December 15, 2016 and interim periods within those fiscal years with early adoption permitted. We expect to adopt ASU 2016-09 in the first quarter of 2017 and are evaluating the impact that the adoption of ASU 2016-09 will have on our consolidated financial statements and related disclosures.

3. Cash Equivalents and Marketable Securities

The following is a summary of our cash equivalents and marketable securities at December 31, 2016 and 2015 (in thousands):

	December 31, 2016			
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Money market funds	$ 432	$ —	$ —	$ 432
U.S. Treasury securities	414,134	54	(93)	414,095
	414,566	54	(93)	414,527
Less: cash equivalents	(432)	—	—	(432)
Total marketable securities	$ 414,134	$ 54	$ (93)	$ 414,095

	December 31, 2015			
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Money market funds	$ 34,821	$ —	$ —	$ 34,821
U.S. Treasury securities	477,239	13	(127)	477,125
	512,060	13	(127)	511,946
Less: cash equivalents	(144,470)	—	19	(144,451)
Total marketable securities	$ 367,590	$ 13	$ (108)	$ 367,495

As of December 31, 2016, the amortized cost and estimated fair value of our available-for-sale securities by contractual maturity are shown below (in thousands):

	Amortized Cost	Estimated Fair Value
Debt securities maturing:		
In one year or less	$ 402,644	$ 402,619
In one to two years	11,490	11,476
Total marketable securities	$ 414,134	$ 414,095

Our cash equivalents and marketable securities have an average maturity of approximately 4 months and the longest maturity is 13 months. We determined that the gross unrealized losses of $93,000 on our marketable securities as of December 31, 2016 were temporary in nature and related primarily to interest rate shifts rather than significant changes in the underlying credit quality of the securities that we hold. We currently do not intend to sell these securities prior to maturity and do not consider these investments to be other-than-temporarily impaired at December 31, 2016. There were no sales of available-for-sale securities in any of the periods presented.

4. Property and Equipment

Property and equipment consist of the following (in thousands):

	December 31,	
	2016	2015
Computer equipment and software	$ 1,467	$ 1,399
Furniture and fixtures	804	804
Laboratory equipment	14,853	11,887
Leasehold improvements	2,468	2,396
	19,592	16,486
Less: accumulated depreciation and amortization	(13,385)	(11,947)
Property and equipment, net	$ 6,207	$ 4,539

5. Other Accrued Liabilities

Other accrued liabilities consist of the following (in thousands):

	December 31,	
	2016	2015
Clinical development	$ 6,831	$ 1,966
Manufacturing	4,463	333
Trade Payable	3,729	3,252
Other	412	331
Total accrued liabilities	$ 15,435	$ 5,882

6. Stockholders' Equity

Equity Incentive Plans

Our Board of Directors, or Board, and stockholders previously approved the 2002 Equity Incentive Plan, or the 2002 Plan, and the 2010 Equity Incentive Plan, or the 2010 Plan, and collectively with the 2002 Plan, the Prior Plans. The 2002 Plan terminated in March 2012. In September 2013, our stockholders approved the 2013 Omnibus Incentive Plan, or the 2013 Plan. As of September 23, 2013, the effective date of the 2013 Plan, we suspended the 2010 Plan and no additional awards may be granted under the 2010 Plan. Any shares of common stock covered by awards granted under the Prior Plans that terminate after September 23, 2013 by expiration, forfeiture, cancellation or other means without the issuance of such shares were added to the 2013 Plan reserve.

The initial number of shares of common stock available for issuance under the 2013 Plan was 3,500,000, which includes the 1,069,985 shares of common stock that were available for issuance under the Prior Plans as of the effective date of the 2013 Plan. Unless our Board provides otherwise, beginning on January 1, 2014 and continuing until the expiration of the 2013 Plan, the total number of shares of common stock available for issuance under the 2013 Plan will automatically increase annually on January 1 by 4% of the total number of issued and outstanding shares of common stock as of December 31 of the immediately preceding year. As of December 31, 2016, 1,340,666 shares of common stock were available for future issuance of options, restricted stock and other stock-based awards under the 2013 Plan.

Incentive stock options may be granted with an exercise price of not less than estimated fair value, and nonstatutory stock options may be granted with an exercise price of not less than 85% of the estimated fair value of the common stock on the date of grant. Stock options granted to a stockholder owning more than 10% of our voting stock must have an exercise price of not less than 110% of the estimated fair value of the common stock on the date of grant. For all stock options granted prior to our IPO, our Board determined the estimated fair value of our common stock. For all stock options granted after the completion of our IPO in September 2013, the fair value for our underlying common stock is determined using the closing market price on the date of grant. Stock options are granted with terms of up to ten years and generally vest over a period of four years.

RSAs may be granted for no consideration (other than par value of the shares of stock). The fair value of RSAs is based upon the closing price of our common stock on the date of grant. RSAs generally vest over one and a half to three years and are nontransferable until the awards vest.

In September 2013, our stockholders approved the 2013 Employee Stock Purchase Plan, or the ESPP, which became effective as of September 23, 2013. We initially reserved a total of 250,000 shares of common stock for issuance under the ESPP. Unless our Board provides otherwise, beginning on January 1, 2014 and continuing until the expiration of the ESPP, the total number of shares of common stock available for issuance under the ESPP will automatically increase annually on January 1 by the lesser of (i) 1% of the total number of issued and outstanding shares of common stock as of December 31 of the immediately preceding year, or (ii) 300,000 shares of common stock. As of December 31, 2016, 714,951 shares of common stock were available for issuance under the ESPP.

The following table summarizes option activity under our stock plans and related information:

	Options Outstanding			
	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Terms (in years)	Aggregate Intrinsic Value (in thousands)
Balance at January 1, 2016	3,028,714	$ 12.62		
Options granted	1,448,850	$ 44.32		
Options exercised	(884,139)	$ 7.74		
Options forfeited	(138,958)	$ 21.44		
Options expired	(128)	$ 18.37		
Balance at December 31, 2016	3,454,339	$ 26.80		
Options exercisable at December 31, 2016	1,308,431	$ 13.73	6.44	$ 47,603
Options vested and expected to vest at December 31, 2016	3,399,919	$ 26.95	8.08	$ 79,094

The weighted-average grant-date fair value per share of stock options granted during the years ended December 31, 2016, 2015 and 2014 was $27.95, $14.18 and $8.39 per share, respectively. The total intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014 was $30.8 million, $10.0 million and $4.2 million, respectively.

We recorded stock-based compensation expense related to options granted to employees and directors of approximately $11.1 million, $4.5 million and $2.9 million for the years ended December 31, 2016, 2015 and 2014, respectively. Stock-based compensation expense related to options granted to individual service providers who are not employees or directors was approximately $309,000, $266,000 and $134,000 for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, there was $39.8 million of total unrecognized compensation expense related to unvested employee and director stock options, net of forfeitures, that we expect to recognize over a weighted-average period of 2.9 years.

Restricted Stock Awards

RSAs are share awards that entitle the holder to receive freely tradable shares of our common stock upon vesting and are unforfeitable once fully vested. The fair value of RSAs was based upon the closing sales price of our common stock on the grant date.

The following table summarizes the RSAs activity under our stock plans and related information:

	RSAs Outstanding	
	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested balance at January 1, 2016	1,574,870	$ 19.71
RSAs granted	395,430	$ 42.75
RSAs vested	(800,554)	$ 19.04
RSAs forfeited	(128,817)	$ 20.87
Unvested balance at December 31, 2016	1,040,929	$ 28.84

The total fair value on the date of vesting of RSAs vested in 2016, 2015 and 2014 was $33.2 million, $42,000, and $54,000, respectively.

We recorded stock-based compensation expense related to RSAs granted to employees and directors of approximately $20.2 million, $6.2 million and $0 million for the years ended December 31, 2016, 2015 and 2014, respectively. Stock-based compensation expense related to RSAs granted to individual service providers who are not employees or directors was approximately $673,000, $85,000 and $0 for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, there was $15.9 million of unrecognized compensation cost related to unvested RSAs, net of forfeitures, that we expect to recognize over a weighted-average period of 1.1 years.

Employee Stock Purchase Plan

Under our ESPP, employees can purchase shares of our common stock based on a percentage of their compensation subject to certain limits. The purchase price per share is equal to the lower of 85% of the fair market value of our common stock on the offering date or the purchase date with a six-month look-back feature. ESPP purchases are settled with common stock from the ESPP's previously authorized and available pool of shares. We issued a total of 45,647 shares under the ESPP in 2016.

The compensation expense related to the ESPP was $602,000, $455,000 and $339,000 for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, there was $253,000 of unrecognized compensation cost related to the ESPP, which we expect to recognize over 4.5 months.

Stock-Based Compensation

Employee stock-based compensation expense recognized was calculated based on awards ultimately expected to vest and has been reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Total stock-based compensation expense recognized was as follows:

	Year Ended December 31,		
(in thousands)	2016	2015	2014
Research and development	$ 17,960	$ 6,362	$ 1,761
General and administrative	14,925	5,105	1,657
Total	$ 32,885	$ 11,467	$ 3,418

We estimated the fair value of each award using the Black-Scholes option-pricing model based on the date of grant of such award with the following assumptions:

	Options			ESPP		
	Year Ended December 31,			Year Ended December 31,		
	2016	2015	2014	2016	2015	2014
Expected term (years)	5.5-6.3	5.5-6.1	5.3-6.7	0.5	0.5	0.5
Expected volatility	69.0-74.0%	71.0-76.0%	85.0%	47.0-57.0%	75.0-96.0%	49.0-83.0%
Risk-free interest rate	1.3-1.8%	1.4-1.9%	1.6-2.0%	0.4-0.6%	0.1-0.3%	0.1%
Expected dividend yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

The expected term of options granted represents the period of time that we expect options granted to remain outstanding, which we determined using the simplified method as we have insufficient historical information to provide a basis for estimate. The expected term of the ESPP rights is equal to the six-month look-back period. Volatility for options granted in 2013 is based on the average historical volatility of a peer group of public companies over the expected term. Volatility for options granted in 2014 and 2015 is based on the average of the historical volatility of our stock price and a peer group of public companies. We selected the peer group on the basis of operational and economic similarity with our principal business operations. Volatility for options granted subsequent to 2015 is based on the historical volatility of our stock price since we became publicly traded. Volatility for ESPP rights is equal to our historical volatility over the six-month look-back period. The risk-free interest rate for the expected term of the options is based on the U.S. Treasury yield curve with a maturity equal to the expected term in effect at the time of grant. We have not paid, and do not anticipate paying, cash dividends on our shares of common stock; therefore, the expected dividend yield is zero.

7. Earnings per Share

The computation of basic income (loss) per share is based on the weighted-average number of our common shares outstanding. The computation of diluted income (loss) per share is based on the weighted-average number of our common shares outstanding and dilutive potential common shares, which include principally shares that may be issued under our equity incentive plans, determined using the treasury stock method.

The following table sets forth the computation of basic and diluted net income (loss) (in thousands, except per share data):

	Year Ended December 31,		
	2016	2015	2014
Numerator:			
Net income (loss)	$ (65,697)	$ 249,647	$ (37,424)
Denominator:			
Denominator for basic income (loss) per share - weighted-average shares	26,955	25,661	20,865
Effect of dilutive securities:			
Equity incentive plans	—	1,374	—
Denominator for diluted income (loss) per share	26,955	27,035	20,865
Income (loss) per share - Basic	$ (2.44)	$ 9.73	$ (1.79)
Income (loss) per share - Diluted	$ (2.44)	$ 9.23	$ (1.79)

We did not include potentially dilutive securities that would have an antidilutive effect. In 2016 and 2014, this consisted of all stock options to purchase common stock and RSAs. In 2015, this consisted of certain stock options to purchase common stock and RSAs.

We excluded the following securities from the calculation of diluted net income (loss) per share as the effect would have been antidilutive (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Options to purchase common stock	2,981	187	2,379
RSAs	1,278	8	9
	4,259	195	2,388

8. Employee Benefit Plans

We sponsor a 401(k) plan that stipulates that eligible employees can elect to contribute to the 401(k) plan, subject to certain limitations, up to the lesser of the statutory maximum or 100% of eligible compensation on a pre-tax basis. We pay the administrative costs for the plan.

Effective January 1, 2015, we elected to match employee contributions to the 401(k) plan, or the company match, as permitted by the 401(k) plan. During 2016, we made matching contribution in an amount equal to 50% of the amount contributed by the employee up to an annual maximum company match per employee equal to $6,000. We recorded company match expense of $712,000 for the year ended December 31, 2016. During 2015, we made matching contributions in an amount equal to 50% of the amount contributed by the employee up to an annual maximum company match per employee equal to the lesser of (i) 4% of such employee's compensation, or (ii) $6,000. During 2015, we delivered the company match through the issuance of shares of our common stock. We delivered 17,803 shares of our common stock as the company match in 2015 and recorded 401(k) plan company match expense of $477,000 for the year ended December 31, 2015.

9. Collaborative Research and Development Agreements

Bristol-Myers Squibb Company

License and Collaboration Agreement

On October 14, 2015, we entered into a license and collaboration agreement, or the cabiralizumab collaboration agreement, with Bristol-Myers Squibb Company, or BMS, pursuant to which we granted BMS exclusive global rights to develop and commercialize certain colony stimulating factor-1 receptor, or CSF1R, antibodies, including our monoclonal CSF1R inhibiting antibody that we refer to as cabiralizumab, and all modifications, derivatives, fragments, or variants of such antibodies, each of which we refer to as a licensed antibody. Under the terms of the cabiralizumab collaboration agreement, BMS is responsible, at its expense, for developing products containing licensed antibodies, each of which we refer to as a licensed product, under a development plan, subject to our option, at our own expense, to conduct certain studies, including registration-enabling studies to support approval of cabiralizumab in PVNS and in combination with our proprietary internal or in-licensed compounds, including in oncology. BMS is responsible for manufacturing and commercializing each licensed product and we will retain rights to a U.S. co-promotion option. This supersedes the clinical trial collaboration agreement we entered into with BMS in November 2014.

We continue to conduct the current Phase 1a/1b clinical trial to evaluate the safety, tolerability and preliminary efficacy of combining *Opdivo* ® (nivolumab), BMS's programmed-death 1 (PD-1) immune checkpoint inhibitor, with cabiralizumab in multiple tumor types, which we commenced under the original clinical trial collaboration agreement. BMS bears all costs and expenses relating to this current trial, including manufacturing costs for the supply of cabiralizumab, except that we are responsible for our own internal costs, including internal personnel costs. We received $8.0 million and $0.2 million of research funding in 2016 and 2015, respectively, related to the research we performed under the cabiralizumab collaboration agreement.

Pursuant to the cabiralizumab collaboration agreement, BMS made an upfront payment of $350.0 million to us in December 2015. We applied ASC 605-25, *Multiple-Deliverable Revenue Arrangements* , in evaluating the appropriate accounting for the cabiralizumab collaboration agreement. We identified the license to BMS and the associated transfer of manufacturing and other know-how as substantive deliverables under this agreement. Since all of the deliverables were fully delivered by December 31, 2015, the $350.0 million upfront license fee associated with the deliverables was entirely recognized as revenue in 2015.

Additionally, we are eligible to receive up to $1.05 billion in development and regulatory milestone payments per anti-CSF1R product for oncology indications and up to $340 million in development and regulatory milestone payments per anti-CSF1R product for non-oncology indications, as well as royalties ranging from the high teens to the low twenties, such royalties to be enhanced in the U.S. in the event that we exercise our co-promotion option. We determined that these contingent payments will not be accounted for under the milestone method of revenue recognition as the events that trigger these payments under the agreement with BMS do not meet the definition of a milestone under ASC 605-28, *Milestone Method of Revenue Recognition* , because the achievement of these milestones is solely dependent on BMS's performance. Revenue from these contingent payments will be recognized if and when such payments become due, subject to satisfaction of all the criteria necessary to recognize revenue at that time, because we do not have any outstanding performance obligations under this arrangement. For the year ended December 31, 2016, we did not recognize any revenue for development and regulatory milestone payments.

Under the original clinical trial collaboration agreement, BMS paid us an upfront fee of $30.0 million in December 2014. Initially, the $30.0 million upfront fee was contingently refundable if certain change of control events occurred prior to a specified date. As such, the upfront fee was not considered to be fixed or determinable at that time and was recorded as deferred revenue as of December 31, 2014. Under the cabiralizumab collaboration agreement, the $30.0 million upfront fee under the original clinical trial collaboration is no longer contingently refundable. Therefore, upon the effectiveness of the cabiralizumab collaboration agreement, the upfront fee became fixed or determinable and we started recognizing revenue ratably, using a cumulative catch up method, over the estimated performance period ending in 2019. We will periodically evaluate the estimated performance period based on the progress made under the collaboration. During 2016 and 2015, we recognized $5.9 million and $6.4 million, respectively, of revenue relating to the upfront fee.

For the years ended December 31, 2016 and 2015, we recognized $14.4 million and $359.9 million, respectively, of revenue under the cabiralizumab collaboration agreement. As of December 31, 2016 and 2015, we had deferred revenue relating to the collaboration of $17.7 million and $23.6 million, respectively.

Immuno-Oncology Research Collaboration

In March 2014, we entered into a research collaboration and license agreement, or the immuno-oncology research collaboration, with BMS, to carry out a research program to (i) discover novel interacting proteins in two undisclosed immune checkpoint pathways, which we refer to as the checkpoint pathways, using our target discovery platform; (ii) further the understanding of target biology with respect to targets in these checkpoint pathways; and (iii) discover and pre-clinically develop compounds suitable for development for human therapeutic uses against targets in these checkpoint pathways. Under the immuno-oncology collaboration, we granted BMS an exclusive, worldwide license to research, develop and commercialize products directed towards certain targets in the checkpoint pathways. BMS will have an option to take exclusive licenses to additional targets we may identify in these checkpoint pathways during the course of the immuno-oncology research collaboration. Based on data arising from our initial screens, in January 2016, we amended the immuno-oncology research collaboration to add an additional checkpoint pathway to the research program, for a total of three undisclosed immune checkpoint pathways.

We received an upfront payment of $20.0 million from BMS in April 2014 in connection with our entry into the immuno-oncology research collaboration and expect to receive $9.5 million in research funding over the course of the three-year research term based on the research activities currently planned under the research plan. BMS may extend the research term for two additional one-year periods on a year-by-year basis, during which extensions we would be obligated to perform additional services as agreed to with BMS and BMS would be obligated to pay us research funding with respect to such services. The initial research term under the immuno-oncology research

collaboration expire in March 2017. In December 2016, BMS exercised its option to extend the research term for an additional year to March 2018. BMS has the option to extend the research term for one additional year.

We applied ASC 605-25, *Multiple-Deliverable Revenue Arrangements* , in evaluating the appropriate accounting for the immuno-oncology collaboration. In accordance with this guidance, we concluded that we should account for the immuno-oncology research collaboration as a single unit of accounting because the intellectual property delivered to BMS was not considered to have stand-alone value and recognize the immuno-oncology research collaboration consideration in the same manner as the final deliverable, which is research service. We recorded the $20.0 million upfront payment as deferred revenue and are recognizing it over the five-year research period under the immuno-oncology research collaboration. In addition, BMS agreed to pay us $9.5 million of research funding over the initial three-year research program term. We received $1.6 million, $4.1 million and $3.4 million of research funding in 2016, 2015 and 2014, respectively, related to research we performed under the immuno-oncology research collaboration.

We are eligible to receive certain contingent payments with respect to each target subject to the immuno-oncology research collaboration and royalties on sales of products related to such targets, if any.

In accordance with ASC 605-28, we determined that the remaining contingent payments under the immuno-oncology research collaboration do not constitute milestone payments and will not be accounted for under the milestone method of revenue recognition. The events leading to these payments under the collaboration do not meet the definition of a milestone under ASC 605-28 because the achievement of these events solely depends on BMS's performance. Any revenue from these contingent payments would be subject to an allocation of arrangement consideration and would be recognized over any remaining period of performance obligations, if any, relating to the collaboration. If we have no remaining performance obligations under the immuno-oncology research collaboration at the time the contingent payment is triggered, we would recognize the contingent payment as revenue in full upon the triggering event.

In connection with the immuno-oncology research collaboration, BMS purchased 994,352 shares of our common stock at a price per share of $21.16, for an aggregate purchase price of $21.0 million. We determined that the purchase price of $21.16 per share exceeded the fair value of our common stock by $2.4 million and, therefore, recorded the $2.4 million as deferred revenue to be recognized in the same manner as the $20.0 million upfront payment.

For the years ended December 31, 2016, 2015, and 2014, we recognized $7.7 million, $7.0 million and $6.0 million, respectively, of revenue under the immuno-oncology research collaboration. As of December 31, 2016 and 2015, we had deferred revenue relating to the immuno-oncology research collaboration of $10.6 million and $16.8 million, respectively.

The immuno-oncology research collaboration will terminate upon the expiration of all payment obligations under the collaboration. In addition, BMS may terminate the immuno-oncology research collaboration in its entirety or on a collaboration target-by-collaboration target basis at any time with advance written notice and either party may terminate the collaboration in its entirety or on a collaboration target-by-collaboration target basis with written notice for the other party's material breach if such other party fails to timely cure the breach or immediately upon certain insolvency events.

GlaxoSmithKline LLC

Respiratory Diseases Collaboration

In April 2012, we entered into research collaboration and license agreement, or the respiratory diseases collaboration, with GlaxoSmithKline LLC, or GSK, to identify new therapeutic approaches to treat refractory asthma and chronic obstructive pulmonary disease, or COPD, function with a particular focus on identifying novel protein therapeutics and antibody targets. We conducted six customized cell-based screens of our protein library under this agreement. Under the terms of the agreement, GSK paid us an upfront technology access payment of $7.5 million at the inception of the respiratory diseases collaboration . In addition, GSK agreed to pay us $10.5 million of research funding over the research program term.

We applied ASC 605-25, *Multiple-Deliverable Revenue Arrangements* , in evaluating the appropriate accounting for this agreement. In accordance with this guidance, we concluded that the arrangement should be accounted for as a single unit of accounting and that the agreement consideration should be recognized in the same manner as the final deliverable, which is the research service. We recorded the $7.5 million upfront technology access payment as deferred revenue and we are recognizing such payment over the initial four-year research period under the agreement.

Pursuant to the respiratory diseases collaboration, GSK exercised its option to expand the research plan to include two additional screening assays. We received $2.0 million in additional research funding for the two additional screening assays as of December 31, 2015.

In January 2016, we amended our respiratory diseases collaboration to extend the research term by three months to July 2016 to allow additional validation of the protein targets we discovered and to increase the research funding by $0.7 million that GSK is obligated to pay us under our collaboration. Such funding was fully received as of December 31, 2016.

We are eligible to receive certain option and selection payments, payments for the achievement of certain development activities, and royalties on the sales of products related to targets GSK selects for exclusive development, if any.

We are eligible to receive up to $124.3 million in potential target evaluation and selection fees and contingent payments with respect to each protein target for which GSK will have sole responsibility for the further development and commercialization of products that incorporate or target such protein target, or a track 1 target. GSK is also obligated to pay us tiered low- to mid-single digit royalties on global net sales for each product that incorporates or targets each such track 1 target. We are eligible to receive up to $193.8 million in potential target evaluation and selection fees and contingent payments with respect to each protein target for which we will develop biologics that incorporate or target the protein targets through to clinical proof of mechanism in either a phase 1 clinical trial or a phase 2 clinical trial, or a track 2 target. GSK is also obligated to pay us tiered high-single to low-double digit royalties on global net sales for each product that incorporates or targets each such track 2 target.

In accordance with ASC 605-28, we determined that the remaining contingent payments under the respiratory diseases collaboration do not constitute milestone payments and we will not account for such payments under the milestone method of revenue recognition.

In connection with our entry into the respiratory diseases collaboration, GSK purchased 381,693 shares of our Series A-3 convertible preferred stock at a price of $26.20 per share, resulting in net cash proceeds to us of $10.0 million. We determined that the purchase price of $26.20 per share exceeded the estimated fair value of the Series A-3 convertible preferred stock by $3.1 million and, therefore, recorded the $3.1 million as deferred revenue to be recognized in the same manner as the upfront technology access payment.

In the years ended December 31, 2016, 2015 and 2014, we received $3.6 million, $3.9 million and $3.9 million, respectively, of research funding and milestones related to all research being performed under the respiratory diseases collaboration. Total revenue recognized under the respiratory diseases collaboration was $5.0 million, $7.3 million and $6.4 million for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, we fully recognized the deferred revenue related to the respiratory diseases collaboration as we completed our obligation to provide research service. As of December 31, 2015, we had deferred revenue related to this agreement of $1.7 million. Additionally, GSK is obligated to reimburse us for certain specialized research and development costs associated with the screens under the respiratory diseases collaboration.

The respiratory diseases collaboration will terminate upon the expiration of the royalty terms of any products that incorporate or target a protein exclusively licensed under the collaboration. In addition, GSK may terminate this agreement at any time with advance written notice, and either party may terminate this agreement with written notice for the other party's material breach if such party fails to cure the breach or immediately in the case of failure to comply with certain anti-bribery and anti-corruption policies or upon certain insolvency events.

FP-1039 License and Collaboration

In March 2011, we entered into a license and collaboration agreement, or the FP-1039 license, with Human Genome Sciences, Inc., or HGS, which was acquired by GSK in 2012. Pursuant to the FP-1039 license, we granted GSK an exclusive license to develop and commercialize our FP-1039 product and other FGFR1 fusion proteins in the United States, the European Union and Canada.

We received an upfront license fee of $50.0 million from GSK in March 2011 in connection with our entry into the FP-1039 license. We identified the initial license, associated technology transfer and services for the conduct of the then-concluding FP-1039 Phase 1 clinical trial as substantive deliverables under the FP-1039 license. As of December 31, 2011, all deliverables under the FP-1039 license were fully delivered and we recognized the related $50.0 million of upfront license fee fully as revenue.

In addition, GSK was obligated to pay us for the costs of all FP-1039 related research and development activities we elected to undertake on behalf of GSK. For the years ended December 31, 2016, 2015 and 2014, we recognized $21,000, $0.1 million and $0.1 million, respectively, in revenue from GSK related to development costs associated with FP-1039.

In March 2016, GSK delivered to us a written notice of termination of the FP-1039 license. Pursuant to the terms of the FP-1039 license, termination of the FP-1039 license became effective on September 5, 2016, 180 days after GSK's notice of termination. Pursuant to the terms of the FP-1039 license, we elected to have GSK complete the conduct of the Phase 1b clinical trial of FP-1039 that GSK is currently conducting, at GSK's expense.

Muscle Diseases Collaboration

In July 2010, we entered into a research collaboration and license agreement, or the muscle diseases collaboration, with GSK, to identify potential drug targets and drug candidates to treat skeletal muscle diseases. Under the terms of the muscle diseases collaboration, we received an upfront technology access payment of $7.0 million in August 2010. The $7.0 million upfront technology access payment was recorded as deferred revenue, which we initially began recognizing over the initial three-year research period under the agreement. We fully recognized the deferred revenue related to this agreement in 2014 as we completed our obligation to provide research services.

In May 2011, we amended the agreement to expand the research plan in scope and duration to include an additional cell-based screen and an *in vivo* screen using our RIPPS technology. Under the amendment, GSK agreed to provide an additional $6.3 million of research funding over a three-year research program term beginning on the date of the expansion. Due to the amendment, in May 2011 we revised our estimate of our substantive performance period under this collaboration to extend through the end of this additional research term and began recognizing the remaining unamortized portion of the upfront payment over this revised period into May 2014. We fully recognized the deferred revenue related to this agreement in 2014 following the completion of our obligation to provide research services in May 2014.

We were eligible to receive certain option and selection payments related to targets identified in the collaboration. We are also eligible to receive payments for the achievement of certain development activities and royalties on the sales of products related to targets GSK selected for exclusive development.

We were eligible to receive up to $1.8 million of option and selection payments per target when GSK claimed and selected a target for further development. In accordance with ASC 605-28, we concluded that these payments under the agreement with GSK were substantive and accounted for these milestones under the milestone method of revenue recognition.

In accordance with ASC 605-28, we determined that the remaining contingent payments under the agreement with GSK do not constitute milestone payments and will not be accounted for under the milestone method of revenue recognition. The events leading to these payments under the muscle diseases collaboration do not meet the definition of a milestone under this standard because the achievement of these events is solely dependent on GSK's performance.

In connection with our entry into the muscle diseases collaboration, GSK purchased 329,597 shares of our Series A-2 convertible preferred stock at a price of $22.76 per share, resulting in net cash proceeds to us of $7.5 million. We determined that the purchase price of $22.76 per share exceeded the estimated fair value of the Series A-2 convertible preferred stock by $3.0 million and, therefore, recorded the $3.0 million as revenue in the same manner as the upfront technology access payment.

In December 2012, GSK selected a protein therapeutic target for further evaluation. We received the related selection fee of $0.3 million in 2013. In September 2013, we entered into an agreement with GSK to extend the evaluation period for this protein therapeutic target by approximately eight months. In connection with the extension of the evaluation period, GSK paid a $0.2 million extension fee, which we have fully recognized in revenue over the eight-month extension period in 2014.

In October 2013, GSK exercised its right to reserve for further evaluation several protein therapeutic targets for muscle diseases that we discovered pursuant to the muscle diseases collaboration. In connection with reserving these targets for further evaluation, GSK paid us a selection fee of $0.3 million in 2013. In September, 2014, GSK exercised its option to license an undisclosed muscle disease target that we identified. We granted GSK an exclusive, worldwide license to products containing or directed to the target. We received a payment of $1.5 million in connection with the option exercise

Total revenue recognized under the muscle diseases collaboration was $3.4 million for the year ended December 31, 2014. As of December 31, 2014, the deferred revenue related to this agreement had been fully recognized as we completed our obligation to provide research services.

The muscle diseases collaboration will terminate upon the expiration of the royalty terms of any products that incorporate or target a protein exclusively licensed under the collaboration. In addition, GSK may terminate this agreement at any time with advance written notice, and either party may terminate this agreement with written notice for the other party's material breach if such party fails to cure the breach or upon certain insolvency events.

UCB Fibrosis and CNS Collaboration

In March 2013, we entered into a research collaboration and license agreement, or the fibrosis and CNS collaboration, with UCB Pharma, S.A., or UCB, to identify potential biologics targets and therapeutics in the areas of fibrosis-related immunologic diseases and central nervous system disorders.

We applied ASC 605-25, Multiple-Deliverable Revenue Arrangements, to evaluate the appropriate accounting for this agreement. In accordance with this guidance, we concluded that we should account for the arrangement as a single unit of accounting and recognize the agreement consideration in the same manner as the final deliverable of the research services.

Under the terms of the fibrosis and CNS collaboration, UCB paid us an upfront payment of $6.0 million in March 2013. In addition, UCB agreed to pay us $6.6 million for a technology fee and $2.0 million for research funding. All of which was recorded as deferred revenue and being amortized over the initial five-year research period under the agreement. As of December 31, 2015, we fully collected on the technology fees and research funding under the fibrosis and CNS collaboration.

We are eligible to receive certain evaluation and selection fees and contingent payments with respect to each protein target that UCB elects to obtain an exclusive license, and royalties on the sales of products related to such targets, if any.

We are eligible to receive up to $0.4 million of target evaluation and selection fees with respect to each target we have offered to UCB in the collaboration. In accordance with ASC 605-28, we concluded that these fees under the agreement with UCB are substantive and should be accounted for under the milestone method of revenue recognition. During 2016 and 2015, we received $0.4 and $0.1 million in target evaluation and selection fees, respectively.

In accordance with ASC 605-28, we determined that the remaining contingent payments under the agreement do not constitute milestone payments and will not be accounted for under the milestone method of revenue recognition. The events leading to these payments under the agreement with UCB do not meet the definition of a milestone under ASC 605-28 because the achievement of these events solely depends on UCB's performance.

For the years ended December 31, 2016, 2015 and 2014, we recognized $3.5 million, $4.0 million and $3.2 million of revenue, respectively, under the fibrosis and CNS collaboration. As of December 31, 2016 and 2015, we have deferred revenue relating to this agreement of $3.7 million and $6.7 million, respectively. Additionally, UCB is obligated to reimburse us for certain specialized research and development costs associated with the screens under the agreement.

Our initial research activities under this agreement were completed in March 2016. Upon the completion of those research activities, UCB has up to a two-year evaluation period during which we may be obligated to perform additional services at the request of UCB.

The agreement will terminate upon the expiration of the royalty terms of any products that incorporate or target a protein exclusively licensed under the collaboration. In addition, UCB may terminate this agreement at any time with advance written notice, and either party may terminate the agreement with written notice for the other party's material breach if such other party fails to timely cure the breach or upon certain insolvency events.

bluebird bio, Inc. License Agreement

In May 2015, we entered into an exclusive license agreement, or the bluebird license agreement, with bluebird bio, Inc., or bluebird, under which we licensed to bluebird human antibodies to an undisclosed cancer target to research, develop and commercialize chimeric antigen receptor (CAR) T cell therapies using these antibodies.

Under the bluebird license agreement, bluebird paid us a $1.5 million upfront fee in 2015. There are no other deliverables under the agreement other than the license grant. We recognized the $1.5 million upfront fee as revenue upon delivery of the license grant, which was completed in 2015.

In January 2017, bluebird delivered to us written notice of termination of the license agreement. Pursuant to the terms of the license agreement, termination will become effective on May 17, 2017, which is 120 days after bluebird's notice of termination. Following termination, bluebird will have no future payment obligations to us in connection with the license agreement.

10. Acquired Technologies

Galaxy Biotech, LLC

In December 2011, we entered into an exclusive license agreement with Galaxy Biotech, LLC, or Galaxy, for the development, manufacturing, and commercialization of certain anti-FGFR2b monoclonal antibodies. Under the terms of the agreement, we agreed to pay Galaxy an upfront license payment of $3.0 million. We paid the upfront payment in two equal installments in January 2012 and July 2012. As we had full access to the technology and materials upon execution of the agreement, the lead compound was in an early stage of development, and the underlying technology has no alternative future uses, we recorded the entire upfront payment to research and development expenses in our statement of operations for the year ended December 31, 2011. We are also required to make additional payments based upon the achievement of certain intellectual property, development, regulatory, and commercial milestones, as well as royalties on future net sales of products resulting from development of this purchased technology, if any. In May 2016, we amended the license agreement to revise certain milestone definitions, reduce certain milestone payments and add certain development-related milestone payments that were triggered by dosing of certain patients in the current Phase 1 clinical trial of FPA144. We made milestone payments to Galaxy totaling $2.5 million, $0 and $2.6 million in 2016, 2015 and 2014, respectively.

INBRX 110 LP

In July 2015, we entered into a research collaboration and license agreement with INBRX 110 LP, or Inhibrx, to obtain (a) an exclusive, worldwide license to antibodies to GITR for therapeutic and diagnostic uses, which we refer to respectively as licensed therapeutic products and licensed diagnostic products, and (b) an exclusive option, or the option, to obtain exclusive, worldwide licenses to multi-specific antibodies developed by Inhibrx that bind to both GITR and other targets, each of which we refer to as a multi-specific product. We can exercise an option with respect to a multi-specific product within a limited period of time after (i) certain activities related to initiating clinical manufacturing of such multi-specific product or (ii) if not earlier exercised, the dosing of the first patient in a Phase 2 clinical trial of such multi-specific product.

Pursuant to the agreement, we paid Inhibrx an upfront fee of $10.0 million for the license and for services to be provided by Inhibrx related to a research cell bank in July 2015. Additionally, with respect to each licensed therapeutic product, we will be obligated to pay up to $62.5 million in specified development milestone payments and (i) if such licensed therapeutic product does not receive a Breakthrough Therapy Designation from the FDA up to $280.0 million in specified regulatory and commercial milestone payments, or (ii) if such licensed therapeutic product receives a Breakthrough Therapy Designation from the FDA, up to $380.0 million in specified regulatory and commercial milestone payments. Inhibrx is also eligible for low double-digit tiered royalties on future product sales. We may pay all or a portion of milestone payments for development and regulatory events in shares of our common stock, subject to certain limitations and conditions. We would be obligated to register for resale under the Securities Act any such shares of our common stock.

We expense payments for the acquisition and development of technology as research and development cost if, at the time of payment, the technology is under development, is not approved by the FDA or other regulatory agencies for marketing, has not reached technical feasibility, or otherwise has no foreseeable alternative future use. In accordance with this policy, we expensed the $8.0 million that we determined to be related to the license upon our entry into the agreement in July 2015 as research and development expense.

In accordance with the ASC 730, *Research and Development Costs* , we concluded that we should defer and capitalize the $2.0 million that we determined to be related to the prepayment for the research cell bank services over the performance period. During both 2016 and 2015, we recognized $1.0 million of expense related to the research cell bank services. As of December 31, 2016, we have fully recognized the deferred expense related to this agreement.

11. Income Taxes

For the year ended December 31, 2016, we recorded an income tax benefit of $31.0 million as compared to an income tax expense of $37.8 million for the year ended December 31, 2015. We recorded no income tax expense for the year ended December 31, 2014 due to the loss incurred in that year.

For the year ended December 31, 2015, the income tax expense was based on the taxable income generated in 2015 after utilization of our available federal and state net operating loss carryovers as well as any research credits including consideration of any applicable limitations on the use of these attributes as provided by the Internal Revenue Code and similar state statutes. For the year ended December 31, 2016, the federal tax benefit represents the reversal of the federal tax provided in 2015 due to our ability to carryback federal tax attributes generated this year but not in an amount that is lower than any minimum taxes as provided under federal law. The state tax benefit in the current year represents the reversal of prior state income tax also to an amount that is not lower than any minimum tax as provided under state law.

The components of our income tax (benefit) expense were as follows:

	Year Ended December 31,		
	2016	2015	2014
Current tax (benefit) expense			
Federal	$ (40,740)	$ 47,369	$ —
State	(5,340)	5,473	—
Total current (benefit) expense	(46,080)	52,842	—
Deferred tax (benefit) expense			
Federal	15,032	(15,032)	—
State	—	—	—
Total deferred tax (benefit) expense	15,032	(15,032)	—
Total tax (benefit) expense	$ (31,048)	$ 37,810	$ —

The income tax (benefit) expense differs from the amount computed by applying the statutory federal income tax rate as follows (in thousands)

	Year Ended December 31,		
	2016	2015	2014
Federal statutory income tax	$ (33,862)	$ 100,610	$ (13,098)
State statutory income tax	(3,471)	3,558	—
Nondeductible stock compensation	715	437	(501)
Nontaxable equity premiums	(248)	(443)	(504)
Deferred tax assets (utilized) not benefitted	12,152	(62,705)	14,075
Research and orphan drug credits	(8,029)	(3,846)	—
Other permanent items	1,695	199	28
Income tax (benefit) expense	$ (31,048)	$ 37,810	$ —

The tax effects of temporary differences and carryforwards that give rise to significant portions of the deferred tax assets consist of the following (in thousands):

	As of December 31,	
	2016	2015
Net operating loss carryforwards	$ 5,615	$ 941
Research and orphan drug credits	18,182	819
Deferred revenue	10,939	16,697
Stock based compensation	6,908	4,542
Capitalized license and depreciation basis differences	3,574	3,685
Reserves and accruals	1,736	3,960
Total deferred tax assets	46,954	30,644
Less: valuation allowance	(46,954)	(15,573)
Net deferred tax assets	$ —	$ 15,071

Based on all available objective evidence, we determined it is more likely than not that all net deferred tax assets will not be fully realizable. The available objective evidence considered was our inability to further recover any taxes previously paid and expectation of future taxable income. Accordingly, we recorded a valuation allowance against all of its net deferred tax assets for the years ended December 31, 2016. We will continue to maintain a full valuation allowance on its net deferred tax assets until there is sufficient positive evidence to support the reversal of all or some portion of this allowance. Our valuation allowance increased by $31.4 million during 2016 and decreased by $74.1 million during 2015.

At December 31, 2016, we had approximately $145.1 million of state net operating losses available for future use that expire beginning in 2017 and state research credits of approximately $12.3 million that have no expiration date.

We also have federal research and Orphan Drug credits of approximately $17.2 million available for future use that expire beginning in the year 2023.

We had $9.4 million, $3.4 million and $2.2 million of unrecognized tax benefits as of December 31, 2016, 2015 and 2014, respectively. The unrecognized tax benefits are primarily tax credits for all years and state net operating loss carryover related for certain prior years. We currently have a full valuation allowance against our deferred tax assets, which would impact the timing of the effective tax rate benefit, should any of these uncertain positions be favorably settled in the future. Unrecognized tax benefits may change during the next twelve months for items that arise in the ordinary course of business. As of December 31, 2016, no significant increases or decreases are expected to our uncertain tax positions within the next 12 months. As of December 31, 2016 and 2015, we had no accrued interest or penalties related to income taxes, and no such interest and penalties have been incurred through December 31, 2016. A reconciliation of our unrecognized tax benefits for the years ended December 31, 2016, 2015 and 2014 is as follows (in thousands):

	Unrecognized Income Tax Benefits
Balance as of December 31, 2013	$ 1,781
Additions for prior year tax positions	11
Additions for current year tax positions	445
Balance as of December 31, 2014	2,237
Additions for prior year tax positions	615
Additions for current year tax positions	580
Balance as of December 31, 2015	3,432
Additions for prior year tax positions	4,394
Additions for current year tax positions	1,577
Balance as of December 31, 2016	$ 9,403

We file U.S. and state income tax returns with varying statutes of limitations. The tax years from inception in 2001 forward remain open to examination due to the carryover of unused net operating losses and tax credits. We have no ongoing tax examinations by tax authorities at this time.

12. Commitments and Contingencies

Operating Leases

We lease our corporate office and laboratory facility under an operating lease. We entered into the initial lease in March 2010 and entered into an amendment in November 2014 to amend certain terms of the lease and to increase the amount of leased space, which we refer to collectively as the lease. The lease will expire on December 31, 2017.

The lease contains scheduled rent increases over the lease term. We recognize the related rent expense for the lease on a straight-line basis over the term of the lease with the difference between the rent paid and the straight-line rent expense recorded as deferred rent. As of December 31, 2016 and 2015, deferred rent totaled $0.9 million and $1.6 million, respectively.

We received lease incentives totaled $1.9 million from our landlord for a portion of the costs of leasehold improvements we made to the premises. We amortize the incentives on a straight-line basis over the term of the lease as a reduction of rent expense. As of December 31, 2016 and 2015, the unamortized leasehold improvement incentive totaled $0.3 million and $0.6 million, respectively.

We entered into a new corporate office and laboratory facility lease agreement in December 2016, which we refer to as the new lease. The new lease has an initial term of 10 years, beginning on the rent commencement date, with an option to extend the lease for an additional period of five years. We do not have to pay rent until the rent commencement date. The rent commencement date is the later to occur of (i) January 1, 2018 and (ii) 30 days after the facility is ready for occupancy. Rent is reduced by 50% for the first six months. Pursuant to the terms of the new lease, we are entitled to a tenant improvement allowance of up to $14.4 million. In addition, the new lease required us to deliver an irrevocable standby letter of credit in an amount of $1.5 million to landlord for the period commencing on the effective date of the agreement until at least 60 days after the expiration of the new lease, subject to 50% reduction on the first day of the sixth lease year if certain conditions are met.

Rent expense for the years ended December 31, 2016, 2015 and 2014 was $2.3 million, $2.3 million, and $1.9 million, respectively. The estimated future minimum commitments under our non-cancelable operating leases are as follows (in thousands):

Year ending December 31:	
2017	3,461
2018	5,092
2019	7,025
2020	7,274
2021	7,524
Thereafter	51,017
Total estimated minimum payments	$ 81,393

Indemnifications

As permitted under Delaware law and in accordance with our bylaws, we have agreed to indemnify our officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at our request in such capacity. The term of the indemnification period is equal to the officer's or director's lifetime.

The maximum amount of potential future indemnification is unlimited; however, we currently hold director and officer liability insurance. This insurance limits our exposure and may enable us to recover a portion of any future amounts paid. We believe that the fair value of these indemnification obligations is minimal. Accordingly, we have not recognized any liabilities relating to these obligations for any period presented.

We have certain agreements with service providers and other parties with which we do business that contain indemnification provisions pursuant to which we have agreed to indemnify the party against certain types of third-party claims. We accrue for known indemnification issues when a loss is probable and can be reasonably estimated. We would also accrue for estimated incurred but unidentified indemnification issues based on historical activity. As we have not incurred any indemnification losses to date, there were no accruals for or expenses related to indemnification issues for any period presented.

13. Selected Quarterly Financial Information (Unaudited)

The following amounts are in thousands, except per share amounts:

	Quarter Ended			
Quarterly Results of Operations	**March 31, 2016**	**June 30, 2016**	**September 30, 2016**	**December 31, 2016**
	(Unaudited)			
Revenue	$ 6,520	$ 9,229	$ 6,680	$ 8,262
Net loss	(13,040)	(13,137)	(19,414)	(20,106)
Basic and diluted net loss per share	(0.49)	(0.49)	(0.72)	(0.73)

	Quarter Ended			
Quarterly Results of Operations	**March 31, 2015**	**June 30, 2015**	**September 30, 2015**	**December 31, 2015**
	(Unaudited)			
Revenue	$ 4,287	$ 6,315	$ 5,858	$ 363,341 (1)
Net income (loss)	(11,036)	(11,474)	(23,971)	296,128
Basic net income (loss) per share	(0.44)	(0.45)	(0.93)	11.37
Diluted net income (loss) per share	(0.44)	(0.45)	(0.93)	10.63

(1) Includes the $350.0 million upfront license fee from the cabiralizumab collaboration agreement. See Note 9 for further discussion.

Basic and diluted net income (loss) per share is computed independently for each of the quarters presented. Therefore, the sum of quarterly basic and diluted per share amounts may not equal annual basic and diluted net income (loss) per share amounts.

EXHIBIT INDEX

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation (incorporated herein by reference to Exhibit 3.1 to the company's Current Report on Form 8-K (File No. 001-36070), filed with the SEC on September 23, 2013).
3.2	Amended and Restated Bylaws (incorporated herein by reference to Exhibit 3.4 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
4.1	Specimen common stock certificate (incorporated herein by reference to Exhibit 4.1 to the company's Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on September 4, 2013).
10.1	Seventh Amended and Restated Investor Rights Agreement by and among the company and the investors named therein, dated as of April 16, 2012 (incorporated herein by reference to Exhibit 10.1 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.2+	2002 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.2 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.3+	Form of Option Agreement under 2002 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.3 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.4+	2010 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.4 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.5+	Form of Option Agreement under 2010 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.5 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.6+	2013 Omnibus Incentive Plan (incorporated herein by reference to Exhibit 4.8 to the company's Registration Statement on Form S-8 (File No. 333-191700), filed with the SEC on October 11, 2013).
10.7+	Form of Incentive Stock Option Agreement under 2013 Omnibus Incentive Plan (incorporated herein by reference to Exhibit 10.7 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.8+	Form of Non-Qualified Option Agreement under 2013 Omnibus Incentive Plan (incorporated herein by reference to Exhibit 10.8 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.9+	Form of Restricted Stock Agreement under 2013 Omnibus Incentive Plan (incorporated herein by reference to Exhibit 10.9 to the company's Registration Statement on Form S-1 (File No. 333-193491), filed with the SEC on January 22, 2014).
10.10+	2013 Employee Stock Purchase Plan (incorporated herein by reference to Exhibit 4.11 to the company's Registration Statement on Form S-8 (File No. 333-191700), filed with the SEC on October 11, 2013).
10.11+	Offer Letter Agreement by and between the company and Aron M. Knickerbocker, dated as of September 4, 2009 (incorporated herein by reference to Exhibit 10.9 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.12+	Offer Letter Agreement by and between the company and Marc L. Belsky, dated as of September 3, 2009 (incorporated herein by reference to Exhibit 10.12 to the company's Registration Statement on Form S-1 (File No. 333-193491), filed with the SEC on January 22, 2014).

Exhibit No.	Description
10.13+	Offer Letter Agreement by and between the company and Francis Sarena, dated as of December 2, 2010 (incorporated herein by reference to Exhibit 10.10 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.14+	Offer Letter Agreement by and between the company and Robert Sikorski, dated as of August 22, 2014.
10.15+	Offer Letter Agreement by and between the company and Kevin Baker, dated as of January 7, 2016.
10.16+	Executive Severance Benefits Agreement by and between the company and Lewis T. Williams, dated as of April 19, 2007 (incorporated herein by reference to Exhibit 10.11 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.17+	Executive Severance Benefits Agreement by and between the company and Aron M. Knickerbocker, dated as of December 30, 2009 (incorporated herein by reference to Exhibit 10.12 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.18+	Amendment No. 1 to the Executive Severance Benefits Agreement by and between the company and Aron M. Knickerbocker, effective December 5, 2012 (incorporated herein by reference to Exhibit 10.13 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.19+	Executive Severance Benefits Agreement by and between the company and Marc L. Belsky, dated as of December 30, 2009 (incorporated herein by reference to Exhibit 10.17 to the company's Registration Statement on Form S-1 (File No. 333-193491), filed with the SEC on January 22, 2014).
10.20+	Executive Severance Benefits Agreement by and between the company and Francis Sarena, dated as of February 18, 2011 (incorporated herein by reference to Exhibit 10.14 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.21+	Amendment No. 1 to the Executive Severance Benefits Agreement by and between the company and Francis Sarena, effective May 8, 2013 (incorporated herein by reference to Exhibit 10.15 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.22+	Amendment No. 1 to the Executive Severance Benefits Agreement by and between the company and Marc Belsky, effective January 16, 2014 (incorporated herein by reference to Exhibit 10.18 to the company's Registration Statement on Form S-1 (File No. 333-193491), filed with the SEC on January 22, 2014).
10.23+	Executive Severance Benefits Agreement by and between the company and Robert Sikorski, dated as of September 17, 2014.
10.24+	Amendment No. 1 to the Executive Severance Benefits Agreement by and between the company and Robert Sikorski, dated as of January 21, 2016.
10.25+	Executive Severance Benefits Agreement by and between the company and Kevin P. Baker, dated as of February 1, 2016.
10.26+	Form of Retention Award Agreement (incorporated herein by reference to Exhibit 10.1 to the company's Current Report on Form 8-K (File No. 001-36070), filed with the SEC on May 4, 2015).
10.27+	Form of Restricted Stock Agreement.
10.28+	Stock Option Grant Notice by and between the company and Aron M. Knickerbocker, dated as of December 16, 2009 (incorporated herein by reference to Exhibit 10.28 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.29+	Amendment to Stock Option by and between the company and Aron M. Knickerbocker, dated as of March 15, 2011 (incorporated herein by reference to Exhibit 10.29 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).

Exhibit No.	Description
10.30+	Form of Indemnification Agreement by and between the company and each of its directors and officers (incorporated herein by reference to Exhibit 10.16 to the company's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on August 16, 2013).
10.31	Lease by and between the company and Britannia Biotech Gateway Limited Partnership, dated as of March 22, 2010 (incorporated herein by reference to Exhibit 10.26 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.32	First Amendment to Lease by and between the company and Britannia Biotech Gateway Limited Partnership, dated as of November 13, 2014 (incorporated herein by reference to Exhibit 10.1 to the company's Current Report on Form 8-K (File No. 001-36070), filed with the SEC on November 14, 2014).
10.33	Sublease by and between the company and AMGEN SF, LLC, dated as of March 22, 2010 (incorporated herein by reference to Exhibit 10.27 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.34	Lease by and between the company and HCP Oyster Point III LLC, dated as of December 12, 2016.
10.35†	Research Collaboration and License Agreement by and between the company and UCB Pharma S.A., dated as of March 14, 2013 (incorporated herein by reference to Exhibit 10.17 to the company's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on August 16, 2013).
10.36†	Amendment No. 1 to the Research Collaboration and License Agreement by and between the company and UCB Pharma S.A., dated as of June 5, 2014 (incorporated herein by reference to Exhibit 10.2 to the company's Quarterly Report on Form 10-Q (File No. 001-36070), filed with the SEC on August 7, 2014).
10.37†*	Amendment No. 2 to the Research Collaboration and License Agreement by and between the company and UCB Pharma S.A., dated as of July 27, 2015 (incorporated herein by reference to Exhibit 10.32 to the company's Annual Report on Form 10-K (File No. 001-36070), filed with the SEC on March 11, 2016).
10.38†	License and Collaboration Agreement by and between the company and Human Genome Sciences, Inc., dated as of March 16, 2011 (incorporated herein by reference to Exhibit 10.18 to the company's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on August 16, 2013).
10.39†	Respiratory Diseases Research Collaboration and License Agreement by and between the company and Glaxo Group Limited, dated as of April 11, 2012 (incorporated herein by reference to Exhibit 10.19 to the company's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on August 16, 2013).
10.40†	Amendment No. 1 to the Respiratory Diseases Research Collaboration and License Agreement by and between the company and Glaxo Group Limited, dated as of August 9, 2012 (incorporated herein by reference to Exhibit 10.20 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
10.41†	Amendment No. 2 to the Respiratory Diseases Research Collaboration and License Agreement by and between the company and Glaxo Group Limited, dated as of April 9, 2014 (incorporated herein by reference to Exhibit 10.1 to the company's to the company's Quarterly Report on Form 10-Q (File No. 001-36070), filed with the SEC on August 7, 2014).
10.42*†	Amendment No. 3 to the Respiratory Diseases Research Collaboration and License Agreement by and between the company and Glaxo Group Limited, dated as of January 26, 2016 (incorporated herein by reference to Exhibit 10.37 to the company's Annual Report on Form 10-K (File No. 001-36070), filed with the SEC on March 11, 2016).

Exhibit No.	Description
10.43†	Research Collaboration and License Agreement by and between the company and GlaxoSmithKline LLC, dated as of July 29, 2010 (incorporated herein by reference to Exhibit 10.21 to the company's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on August 16, 2013).
10.44†	Amendment No. 1 to the Research Collaboration and License Agreement by and between the company and GlaxoSmithKline LLC, dated as of May 17, 2011 (incorporated herein by reference to Exhibit 10.22 to the company's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on August 16, 2013).
10.45†	Exclusive License Agreement by and between the company and Galaxy Biotech, LLC, dated as of December 22, 2011 (incorporated herein by reference to Exhibit 10.23 to the company's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on August 16, 2013).
10.46†	Amendment to the Exclusive License Agreement by and between the company and Galaxy Biotech, LLC, dated as of May 16, 2016 (incorporated herein by reference to Exhibit 10.1 to the company's quarterly report on Form 10-Q (File No. 001-36070), filed with the SEC on August 5, 2016).
10.47†	Exclusive License Agreement by and between the company and the Regents of the University of California, dated as of September 7, 2006 (incorporated herein by reference to Exhibit 10.24 to the company's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on August 16, 2013).
10.48†	Non-Exclusive License Agreement by and among the company, BioWa, Inc. and Lonza Sales AG, dated as of February 6, 2012 (incorporated herein by reference to Exhibit 10.30 to the company's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on August 16, 2013).
10.49†	Research Collaboration and License Agreement, dated as of March 14, 2014, by and between the company and Bristol-Myers Squibb Company (incorporated herein by reference to Exhibit 10.1 to Amendment No. 1 the company's Quarterly Report on Form 10-Q (File No. 001-36070), filed with the SEC on August 26, 2014).
10.50*†	Amendment No. 1 to the Research Collaboration and License Agreement, dated as of January 21, 2016, by and between the company and Bristol-Myers Squibb Company.
10.51*†	License and Collaboration Agreement, dated as of October 14, 2015, by and between the company and Bristol-Myers Squibb Company.
10.52†	Research Collaboration and License Agreement, dated July 13, 2015, by and between the company and INBRX 110 LP (incorporated herein by reference to Exhibit 10.1 to the company's Quarterly Report on Form 10-Q (File No. 001-36070), filed with the SEC on November 5, 2015).
21.1	Subsidiaries of the company (incorporated herein by reference to Exhibit 21.1 to the company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).
23.1*	Consent of Independent Registered Accounting Firm.
24.1	Power of Attorney (included on the signature page to this report).
31.1*	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.
31.2*	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.
32.1*	Certifications of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Exhibit No.	Description
32.2*	Certifications of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS **	XBRL Instance Document.
101.SCH **	XBRL Taxonomy Extension Schema Document.
101.CAL **	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF **	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB **	XBRL Taxonomy Extension Labels Linkbase Document.
101.PRE **	XBRL Taxonomy Extension Presentation Linkbase Document.

* Furnished herewith and not deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act.

\+ Indicates a management contract or compensatory plan.

† Confidential treatment has been granted for certain portions of this exhibit. These portions have been omitted and filed separately with the SEC.

** Filed electronically herewith.

August 22, 2014

Robert Sikorski, M.D., Ph.D.
18316 Tapwood Road
Boyds, MD 20841

Dear Bob,

We remain very pleased with the prospect of your joining our team at FivePrime and have worked with our Compensation Committee to extend to you this revised offer of employment (enhanced stock option award and mortgage assistance) with Five Prime Therapeutics, Inc. as Vice President, Global Clinical Development, reporting directly to me. As a key member of the management team, you would be a member of the Executive Committee.

We would like for your full-time employment with FivePrime to begin at your earliest convenience, but no later than October 1, 2014.

We would pay you a base salary of $350,000 per year, paid semi-monthly less applicable taxes and withholding. Once you begin full-time employment, you would be eligible to participate in FivePrime's benefit plans and programs available to all regular, full-time employees. These benefits currently include medical, vision, dental, disability, 401(k) investment plan, Employee Stock Purchase Plan, Section 125 (flex spending), Section 132 (mass transit) and paid time-off programs.

You would be eligible to participate in FivePrime's annual cash bonus program and your annual target bonus amount would be 30% of your annual base salary. If you start employment with us on or prior to October 1, 2014, you would be eligible for a pro-rated bonus for fiscal year 2014 based on your start date. If you start employment with us after October 1, 2014, your participation in our bonus program would commence on January 1, 2015. We would determine your actual annual performance bonus based on an assessment of your meeting individual goals (50% weighting) as well as FivePrime's attainment of corporate goals (50% weighting). Corporate goal achievement is determined by FivePrime's Board of Directors.

FivePrime is also offering you a hiring bonus of $100,000, the payment of which is conditioned on your acceptance of our employment offer and the start of your employment with us. We would pay you the hiring bonus with your first paycheck. You agree that if you voluntarily resign your employment with FivePrime or if FivePrime terminates your employment for cause, you would promptly repay to FivePrime (i) all of the hiring bonus, if such employment termination occurred prior to the first anniversary of the start of your employment; or (ii) 50% of the hiring bonus, if such employment termination occurred on or after the first anniversary and prior to the second anniversary of the start of your employment.

As an officer of FivePrime, we would provide certain severance and change in control benefits to you under our Executive Severance Benefits Agreement, which we would enter into with you in connection with your start of employment with us. A template of this agreement is attached.

Subject to approval by FivePrime's Board of Directors, we would grant you an incentive stock option to purchase 80,000 shares of common stock of FivePrime. The exercise price per share would be the fair market value of common stock on the date of grant. We would issue your stock option award under our 2013 Omnibus Incentive Plan. Your stock option award would be subject to our form of Stock Option Agreement and the Executive Severance and Benefits Agreement. Subject to your continued

employment with FivePrime and the other terms and conditions of your stock option grant, your stock option award would vest over four years, with 25% of the shares vesting on the first anniversary of your start date and the balance vesting in equal monthly installments over the subsequent 36 months.

In addition, subject to approval by FivePrime's Board of Directors, we would grant you 20,000 shares of restricted common stock of FivePrime under our 2013 Omnibus Incentive Plan. Your restricted stock award would be subject to our form of Restricted Stock Agreement and the Executive Severance and Benefits Agreement. Subject to your continued employment with FivePrime and the other terms and conditions of your restricted stock award, your restricted stock award would vest with respect to 50% of the shares on the second anniversary of your start date and the with respect to the remainder 50% on the third anniversary of your start date.

FivePrime would provide you support for your relocation to the Bay Area by providing relocation assistance benefits as noted below.

- Transport of standard household goods (excluding specialty items such as boats, antiques, fine art or other unique valuables) from your home in Maryland to the Bay Area;
- Shipment of two automobiles to the Bay Area;
- Rental car during transport of your personal automobiles to the Bay Area;
- Up to 4 months of temporary housing (fully furnished one-bedroom apartment);
- Air travel for up to 8 home visits during temporary living term (every 2 weeks);
- A 4-day house hunting trip for you and your spouse, including air fare, hotel, rental car and per diem meal allowance; and
- Reimbursement for the non-recurring closing costs on the purchase of a Bay Area residence

You agree to provide documentation, including receipts, to support all relocation expenses in accordance with FivePrime's generally applicable policies. Lauretta Cesario is available to discuss relocation details with you at your convenience.

You agree that if you voluntarily resign your employment with FivePrime, or if FivePrime terminates your employment for cause, you would promptly repay to FivePrime (i) all of the relocation expenses paid by the Company, if such employment termination occurred prior to the first anniversary of the start of your employment; or (ii) 50% of the relocation expenses, if such employment termination occurred on or after the first anniversary and prior to the second anniversary of the start of your employment.

FivePrime would provide you with mortgage assistance for your purchase of a primary residence in the Bay Area, which we would begin paying to you after you enter into such a mortgage, provided that you enter into such a mortgage within one year of the start of your employment. We would provide this mortgage assistance through our regular semi-monthly payroll process as a separate line item. This mortgage assistance would be taxed as regular income.

Year 1	$ 72,000 paid $3,000 semi-monthly
Year 2	$ 72,000 paid $3,000 semi-monthly
Year 3	$ 72,000 paid $3,000 semi-monthly
Total	$216,000

You agree that if you voluntarily resign your employment with FivePrime, or if FivePrime terminates your employment for cause, you would promptly repay to FivePrime the mortgage assistance benefits we paid to you in accordance with the schedule noted below:

- 100% of mortgage assistance received, if such termination occurred prior to the second anniversary of the start of our payment of mortgage assistance to you
- 75% of mortgage assistance received, if such termination occurred on or after the second anniversary but prior to the third anniversary of the start of our payment of mortgage assistance to you
- 50% of mortgage assistance received, if such termination occurred on or after the third anniversary but prior to the fourth anniversary the start of our payment of mortgage assistance to you

We believe these mortgage assistance benefits will open up the real estate choices available to you in the Bay Area. We will, also, provide confirmation of this additional assistance to the lending institution(s) of your choice in support of your mortgage qualification.

We hope you will see these mortgage assistance benefits as our best faith effort to enable your successful move to the Bay Area and to join with us in the challenging and important work at FivePrime.

As a condition of our offer of employment, we require you to sign and comply with our Confidential Information and Innovation Assignment Agreement, which among other things prohibits unauthorized use or disclosure of FivePrime's confidential information. During your tenure with FivePrime, we would expect you to also abide by FivePrime's policies and procedures. Federal law requires us to verify your identity and eligibility for employment in the United States. Accordingly, our offer of employment is also conditioned upon this verification.

Your employment with FivePrime would not be for a set term and you would be an at-will employee. You would be free to terminate your employment with FivePrime at any time and for any reason whatsoever simply by notifying us. Likewise, we would be free to terminate your employment at any time for any reason whatsoever, with or without cause or advance notice. This at-will employment relationship cannot be changed except in writing and signed by FivePrime's Chief Executive Officer.

This letter, along with the Confidential Information and Innovation Assignment Agreement, supersedes any prior representations or agreements, whether written or oral, with respect to our offer of employment to you. This letter may not be modified or amended except by a written agreement, signed by FivePrime and you.

To accept this offer of employment, please sign, date and return this letter and the Confidential Information and Innovation Assignment Agreement by the end of the business day on Monday, August 25. Please either send a .pdf copy or fax the document to (415) 520-9842, attention Lauretta Cesario, or email a scanned copy to lauretta.cesario@fiveprime.com .

Again, Bob, I am very pleased to make this offer to you. We believe you bring a great deal to FivePrime at this stage of our development and that your contributions will be strategically important in continuing our progress in Cancer and Immuno-oncology. We all look forward to having you join our team as we continue to build a vibrant and successful company dedicated to bringing novel protein therapeutics to patients in need.

Sincerely,

/s/ Julie Hambleton

Julie Hambleton, M.D.
Senior Vice President and Chief Medical Officer

Accepted:

/s/ Robert Sikorski	8.24.14
Robert Sikorski, M.D., Ph.D.	Date

9.17.14
Anticipated Start Date

Executive Severance Benefits Agreement

This Executive Severance Benefits Agreement (this " Agreement ") is entered into as of September 17, 2014 (the " Effective Date "), between Robert Sikorski, an individual (" Executive ") and Five Prime Therapeutics, Inc. (" FivePrime "). This Agreement is intended to provide Executive with certain compensation and benefits in the event that Executive is subject to certain qualifying terminations of employment. Certain capitalized terms used in this Agreement are defined in Article 6.

FivePrime and Executive hereby agree as follows:

ARTICLE 1

Scope of and Consideration for this Agreement

1.1 FivePrime desires to employ Executive, or to continue Executive's employment, in the position of Vice President, Global Clinical Development, and Executive wishes to be employed, or continue to be employed, by FivePrime in such position.

1.2 FivePrime and Executive wish to set forth the compensation and benefits that Executive shall be entitled to receive upon a Change in Control Termination or a Covered Termination.

1.3 The duties and obligations of FivePrime to Executive under this Agreement shall be in consideration for Executive's employment with FivePrime (and if Executive is a continuing employee, his or her past services to FivePrime), and, with respect to the benefits described in Article 2 and Article 3, Executive's compliance with the limitations and conditions on benefits as described in Article 4, including the execution of an effective Release, return of Company property and continued compliance with the Restrictive Covenants.

1.4 This Agreement shall supersede any other policy, plan, program or arrangement, including any contract between Executive and any entity, relating to severance benefits payable by FivePrime to Executive in connection with a Change in Control Termination or Covered Termination.

ARTICLE 2

Change in Control Severance Benefits

2.1 Severance Benefits. Upon a Change in Control Termination, and subject to the limitations and conditions set forth in this Agreement, Executive shall be eligible to receive the benefits set forth in this Article 2.

2.2 Salary Continuance. Executive shall receive, as severance, an amount equal to Executive's Base Salary and Pro-Rata Bonus for that number of months in the Change in Control Severance Period, payable over such number of months immediately following the Termination Date in accordance with FivePrime's payroll schedule then in effect. Except as set forth in Article 4, the payments provided for in this Section 2.2 shall commence with the first regularly scheduled payroll pay date following the Termination Date.

2.3 Health Continuation Coverage .

(a) Provided that Executive is eligible and has made the necessary elections for continuation coverage pursuant to COBRA under a health, dental, or vision plan sponsored by FivePrime,

FivePrime shall pay the applicable premiums (inclusive of premiums for Executive's dependents for such health, dental, or vision plan coverage as in effect immediately prior to the date of the Change in Control Termination) for such continued health, dental, or vision plan coverage following the date of the Change in Control Termination for up to the number of months equal to the Change in Control Severance Period (but in no event after such time as Executive is eligible for coverage under a health, dental or vision insurance plan of a subsequent employer or as Executive and Executive's dependents are no longer eligible for COBRA coverage). Such coverage shall be counted as coverage pursuant to COBRA. FivePrime shall have no obligation in respect of any premium payments (or any other payments in respect of health, dental, or vision coverage from FivePrime) following the effective date of the Executive's coverage by a health, dental, or vision insurance plan of a subsequent employer. Executive shall be required to notify FivePrime immediately if Executive becomes covered by a health, dental, or vision insurance plan of a subsequent employer. If Executive and Executive's dependents continue coverage pursuant to COBRA following the conclusion of the Change in Control Severance Period, Executive will be responsible for the entire payment of such premiums required under COBRA for the duration of the COBRA period.

(b) For purposes of this Section 2.3, (i) references to COBRA shall be deemed to refer also to analogous provisions of state law, and (ii) any applicable insurance premiums that are paid by FivePrime shall not include any amounts payable by Executive under a Code Section 125 health care reimbursement plan, which amounts, if any, are the sole responsibility of Executive.

2.4 Stock Awards. Upon a Change in Control Termination, (i) the vesting and exercisability of all outstanding options to purchase shares of common stock of FivePrime (or stock appreciation rights or other rights with respect to stock of FivePrime issued pursuant to any equity incentive plan of FivePrime) that are held by Executive on the Termination Date shall be accelerated in full, and (ii) any reacquisition or repurchase rights held by FivePrime with respect to common stock issued or issuable (or with respect to other rights with respect to stock of FivePrime issued or issuable) pursuant to any other stock award granted to Executive pursuant to any equity incentive plan of FivePrime shall lapse.

ARTICLE 3

Covered Termination Severance Benefits

3.1 Severance Benefits. Upon a Covered Termination, and subject to the limitations and conditions set forth in this Agreement, Executive shall be eligible to receive the benefits set forth in this Article 3.

3.2 Salary Continuance. Executive shall receive, as severance, an amount equal to Executive's Base Salary and Pro-Rata Bonus for that number of months in the Covered Termination Severance Period, payable over such number of months immediately following the Termination Date in accordance with FivePrime's payroll schedule then in effect. Except as set forth in Article 4, the payments provided for in this Section 3.2 shall commence with the first regularly scheduled payroll pay date following the Termination Date.

3.3 Health Continuation Coverage .

(a) Provided that Executive is eligible and has made the necessary elections for continuation coverage pursuant to COBRA under a health, dental, or vision plan sponsored by FivePrime, FivePrime shall pay for the applicable premiums (inclusive of premiums for Executive's dependents for such health, dental, or vision plan coverage as in effect immediately prior to the date of the Covered Termination) for such continued health, dental, or vision plan coverage following the date of the Covered Termination for up to the number of months equal to the Covered Termination Severance Period (but in no event after such time as Executive is eligible for coverage under a health, dental or vision insurance plan of a subsequent employer or as Executive and Executive's dependents are no longer eligible for COBRA coverage). Such coverage shall be counted as coverage pursuant to COBRA. FivePrime shall

have no obligation in respect of any premium payments (or any other payments in respect of health, dental, or vision coverage from FivePrime) following the effective date of the Executive's coverage by a health, dental, or vision insurance plan of a subsequent employer. Executive shall be required to notify FivePrime immediately if Executive becomes covered by a health, dental, or vision insurance plan of a subsequent employer. If Executive and Executive's dependents continue coverage pursuant to COBRA following the conclusion of the Covered Termination Severance Period, Executive will be responsible for the entire payment of such premiums required under COBRA for the duration of the COBRA period.

(b) For purposes of this Section 3.3, (i) references to COBRA shall be deemed to refer also to analogous provisions of state law, and (ii) any applicable insurance premiums that are paid by FivePrime shall not include any amounts payable by Executive under a Code Section 125 health care reimbursement plan, which amounts, if any, are the sole responsibility of Executive.

3.4 Stock Awards. Upon a Covered Termination, (i) the vesting and exercisability of all unvested shares subject to outstanding options to purchase FivePrime's common stock (or stock appreciation rights or other rights with respect to stock of FivePrime issued pursuant to any equity incentive plan of FivePrime) that are held by Executive on the Termination Date shall be accelerated by fifty percent (50%), and (ii) any reacquisition or repurchase rights held by FivePrime with respect to common stock issued or issuable (or with respect to other rights with respect to stock of FivePrime issued or issuable) pursuant to any other stock award granted to Executive pursuant to any equity incentive plan of FivePrime shall lapse with respect to fifty percent (50%) of those shares then unvested as of the Termination Date.

ARTICLE 4

Limitations and Conditions on Benefits

4.1 Rights Conditioned on Compliance. Executive's rights to receive all severance benefits described in Article 2 and Article 3 shall be conditioned upon and subject to Executive's compliance with the limitations and conditions on benefits as described in this Article 4.

4.2 Continuation of Service Until Date of Termination. Executive shall continue to provide service to FivePrime in good faith until the Termination Date, unless such performance is otherwise excused in writing by FivePrime.

4.3 Release Prior to Payment of Benefits. Upon the occurrence of a Change in Control Termination or a Covered Termination, as applicable, and prior to the provision or payment of any benefits under this Agreement on account of such Change in Control Termination or Covered Termination, as applicable, Executive must execute a general waiver and release in substantially the form attached hereto and incorporated herein as **Exhibit A** , **Exhibit B** , or **Exhibit C** , as appropriate (each a " Release "), and such release must become effective in accordance with its terms, but in no event later than 60 days following the Termination Date. No amount shall be paid prior to such date. Instead, on the 60 th day following the Termination Date, FivePrime will pay Executive the severance amount that Executive would otherwise have received on or prior to such date but for the delay in payment related to the effectiveness of the Release, with the balance of the severance amount being paid as originally scheduled. FivePrime may modify the Release in its discretion to comply with changes in applicable law at any time prior to Executive's execution of such Release. Such Release shall specifically relate to all of Executive's rights and claims in existence at the time of such execution and shall confirm Executive's obligations under Executive's Proprietary Information and Inventions Agreement (or any successor agreement thereto) and any similar obligations under applicable law. It is understood that, as specified in the applicable Release, Executive has a certain number of calendar days to consider whether to execute such Release. If Executive does not execute such Release within the applicable period, no benefits shall be provided or payable under, and Executive shall have no further rights, title or interests in or to any severance benefits or payments pursuant to, this Agreement. It is further understood that if Executive is age 40 or older at the time of a Change in Control Termination or a Covered Termination, as applicable,

Executive may revoke the applicable Release within seven calendar days after its execution by Executive. If Executive revokes such Release within such subsequent seven-day period, no benefits shall be provided or payable under this Agreement pursuant to such Change in Control Termination or Covered Termination, as applicable.

4.4 Return of Company Property. Not later than the Termination Date, Executive shall return to FivePrime all documents (and all copies thereof) and other property belonging to FivePrime that Executive has in his or her possession or control. The documents and property to be returned include all files, correspondence, email, memoranda, notes, notebooks, records, plans, forecasts, reports, studies, analyses, compilations of data, proposals, agreements, financial information, research and development information, marketing information, operational and personnel information, databases, computer-recorded information, tangible property and equipment (including computers, facsimile machines, mobile telephones, and servers), credit cards, entry cards, identification badges and keys; and any materials of any kind that contain or embody any proprietary or confidential information of FivePrime (and all reproductions thereof in whole or in part). Executive agrees to make a diligent search to locate any such documents, property and information. If Executive has used any personally owned computer, server, or e-mail system to receive, store, review, prepare or transmit any Company confidential or proprietary data, materials or information, then within 10 business days after the Termination Date, Executive shall provide FivePrime with a computer-useable copy of all such information and then permanently delete and expunge such confidential or proprietary information from those systems. Executive agrees to provide FivePrime access to Executive's system as requested to verify that the necessary copying and/or deletion is done.

4.5 Cooperation and Continued Compliance with Restrictive Covenants.

(a) From and after the Termination Date, Executive shall cooperate fully with FivePrime in connection with its actual or contemplated defense, prosecution, or investigation of any existing or future litigation, arbitrations, mediations, claims, demands, audits, government or regulatory inquiries, or other matters arising from events, acts, or failures to act that occurred during the time period in which Executive was employed by FivePrime (including any period of employment with an entity acquired by FivePrime). Such cooperation includes being available upon reasonable notice, without subpoena, to provide accurate and complete advice, assistance and information to FivePrime, including offering and explaining evidence, providing truthful and accurate sworn statements, and participating in discovery and trial preparation and testimony. Executive also agrees to promptly send FivePrime copies of all correspondence (for example, but not limited to, subpoenas) received by Executive in connection with any such legal proceedings, unless Executive is expressly prohibited by law from so doing. FivePrime will reimburse Executive for reasonable out-of-pocket expenses incurred in connection with any such cooperation (excluding foregone wages, salary, or other compensation) within 30 days of Executive's timely presentation of appropriate documentation thereof, in accordance with FivePrime's standard reimbursement policies and procedures , and will make reasonable efforts to accommodate Executive's scheduling needs. To the extent that any taxable reimbursements of expenses are provided hereunder, they shall be made or provided in accordance with Section 409A of the Code, including the following provisions: (i) the amount of any such expense reimbursement provided during Executive's taxable year shall not affect any expenses eligible for reimbursement in any other taxable year; (ii) the reimbursement of the eligible expense shall be made no later than the last day of Executive's taxable year that immediately follows the taxable year in which the expense was incurred; and (iii) the right to any reimbursement shall not be subject to liquidation or exchange for another benefit or payment.

(b) From and after the Termination Date, Executive shall continue to abide by all of the terms and provisions of the Confidential Information and Innovation Assignment Agreement between FivePrime and Executive (and any other comparable agreement signed by Executive), in accordance with its terms.

(c) During the Severance Period, Executive will not carry on any business or activity (whether directly or indirectly, as a partner, stockholder, principal, agent, director, affiliate, employee or consultant) that is directly competitive with the business conducted by FivePrime, nor engage in any other

activities that conflict with Executive's continuing obligations to FivePrime. For the purposes of this Agreement, Executive and FivePrime agree that research and development directed toward clinical or commercial stage products or product candidates that FivePrime is actively pursuing on the Termination Date will be considered competitive with the business of FivePrime. Before commencing any participation in any business or activity during the Change in Control Severance Period or Covered Termination Severance Period, as applicable, Executive shall submit advance written notice to the Board describing the nature of the proposed business or activity and the general scope of the business of the entity or individual for which Executive is proposing to perform the work activity or in whose business Executive is proposing to participate in some manner, and FivePrime shall provide a written response within 10 business days indicating whether it consents to the proposed business activity. Failure to respond within this 10 business day period shall constitute consent by FivePrime to the proposed business activity. Notwithstanding the above restrictions in this Section 4.5(c), Executive shall not be prohibited from being a passive stockholder of up to 1% of the public stock of a competitive entity.

(d) Executive acknowledges and agrees that Executive's obligations under this Section 4.5 are an essential part of the consideration Executive is providing hereunder in exchange for which and in reliance upon which FivePrime has agreed to provide the payments and benefits under this Agreement. Executive further acknowledges and agrees that Executive's violation of Section 4.5 inevitably would involve use or disclosure of FivePrime's proprietary and confidential information. Accordingly, Executive agrees that Executive will forfeit, effective as of the date of any breach, any right, entitlement, claim or interest in or to any unpaid portion of the severance payments or benefits provided in Article 2 or Article 3.

4.6 Parachute Payments.

(a) Parachute Payment Limitation . If any payment or benefit (including payments and benefits pursuant to this Agreement) Executive would receive in connection with a Change in Control from FivePrime or otherwise (" Payment ") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the " Excise Tax "), then FivePrime shall cause to be determined, before any amounts of the Payment are paid to Executive, which of the following two alternative forms of payment shall be paid to Executive: (i) payment in full of the entire amount of the Payment (a " Full Payment "), or (ii) payment of only a part of the Payment so that Executive receives the largest payment possible without the imposition of the Excise Tax (a " Reduced Payment "). A Full Payment shall be made in the event that the quotient obtained by dividing (i) the excess of (a) the Full Payment, over (b) the Reduced Payment, by (ii) the Reduced Payment, is greater than ten percent (10%). A Reduced Payment shall be made in the event that the quotient obtained by dividing (i) the excess of (a) the Full Payment, over (b) the Reduced Payment, by (ii) the Reduced Payment, is less than or equal to ten percent (10%). If a Reduced Payment is made, (i) the Payment shall be paid only to the extent permitted under the Reduced Payment alternative, and Executive shall have no rights to any additional payments and/or benefits constituting the Payment, and (ii) reduction in payments and/or benefits shall occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive. In the event that acceleration of compensation from Executive's equity awards is to be reduced, such acceleration of vesting shall be canceled in the reverse order of the date of grant.

(b) The independent registered public accounting firm engaged by FivePrime for general audit purposes as of the day prior to the effective date of the Change in Control shall make all determinations required to be made under this Section 4.6. If the independent registered public accounting firm so engaged by FivePrime is serving as accountant or auditor for the individual, entity or group effecting the Change in Control, FivePrime shall appoint a nationally recognized independent registered public accounting firm to make the determinations required hereunder. FivePrime shall bear all expenses with respect to the determinations by such independent registered public accounting firm required to be made hereunder.

(c) The independent registered public accounting firm engaged to make the determinations hereunder shall provide its calculations, together with detailed supporting documentation, to FivePrime and Executive within 15 calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by FivePrime or Executive) or such other time as requested by FivePrime or Executive. If the independent registered public accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it shall furnish FivePrime and Executive with an opinion reasonably acceptable to Executive that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder shall be final, binding and conclusive upon FivePrime and Executive.

4.7 Certain Reductions and Offsets. To the extent that any federal, state or local laws, including the Worker Adjustment and Retraining Notification Act (the " WARN Act ") or any other so-called "plant closing" laws, require FivePrime to give advance notice or make a payment of any kind to Executive because of Executive's involuntary termination due to a layoff, reduction in force, plant or facility closing, sale of business, change in control, or any other similar event or reason, the benefits payable under this Agreement shall be correspondingly reduced. The benefits provided under this Agreement are intended to satisfy any and all statutory obligations that may arise out of Executive's involuntary termination of employment for the foregoing reasons, and the parties shall construe and enforce the terms of this Agreement accordingly.

4.8 Mitigation. Except as otherwise specifically provided herein, Executive shall not be required to mitigate damages or the amount of any payment provided under this Agreement by seeking other employment or otherwise, nor shall the amount of any payment provided for under this Agreement be reduced by any compensation earned by Executive as a result of employment by another employer or by any retirement benefits received by Executive after the date of a Change in Control Termination or Covered Termination (except as expressly provided in Sections 2.3 and 3.3 above).

4.9 Indebtedness of Executive . If Executive is indebted to FivePrime on the effective date of a Change in Control Termination or Covered Termination, FivePrime reserves the right to offset any severance payments and benefits under this Agreement by the amount of such indebtedness.

4.10 Application of Section 409A . It is intended that each installment of the payments provided for in this Agreement is a separate "payment" for purposes of Treasury Regulation Section 1.409A-2(b)(2)(i). For the avoidance of doubt, it is intended that the payments under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Code Section 409A provided under Treasury Regulation Sections 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9). However, if FivePrime (or, if applicable, the successor entity thereto) determines that the severance payments provided under this agreement (the " Agreement Payments ") constitute "deferred compensation" under Section 409A and Executive is, on the termination of service, a "specified employee" of FivePrime or any successor entity thereto, as such term is defined in Section 409A(a)(2)(B)(i) of the Code, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Code Section 409A, the timing of the Agreement Payments shall be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's separation from service or (ii) the date of Executive's death (such earlier date, the " Delayed Initial Payment Date "), FivePrime (or the successor entity thereto, as applicable) shall (A) pay Executive a lump sum amount equal to the sum of the Agreement Payments that she would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Agreement Payments had not been so delayed pursuant to this paragraph and (B) commence paying the balance of the Agreement Payments in accordance with the applicable payment schedules set forth in this agreement.

4.11 Tax Withholding . All payments under this Agreement shall be subject to applicable withholding for federal, state and local income and employment taxes.

ARTICLE 5

Other Rights and Benefits

Nothing in this Agreement shall prevent or limit Executive's continuing or future participation in any benefit, bonus, incentive or other plans, programs, policies or practices provided by FivePrime and for which Executive may otherwise qualify, nor shall anything herein limit or otherwise affect such rights as Executive may have under other agreements with FivePrime except as provided in Section 1.4 above. Except as otherwise expressly provided herein, amounts that are vested benefits or that Executive is otherwise entitled to receive under any plan, policy, practice or program of FivePrime at or subsequent to the date of a Change in Control shall be payable in accordance with such plan, policy, practice or program.

ARTICLE 6

Definitions

Unless otherwise provided, for purposes of this Agreement, the following definitions shall apply:

6.1 " Base Salary " means 1/12 th of the greater of (i) Executive's annual base salary (excluding incentive pay, premium pay, commissions, overtime, bonuses, and other forms of variable compensation) as in effect immediately prior to a Change in Control Termination or a Covered Termination, as applicable, or (ii) in the case of a Change in Control Termination, Executive's annual base salary (excluding incentive pay, premium pay, commissions, overtime, bonuses, and other forms of variable compensation) as in effect immediately prior to a Change in Control.

6.2 " Board " means the Board of Directors of FivePrime.

6.3 " Cause " means Executive's: (i) dishonest statements or acts with respect to FivePrime, any subsidiary or any affiliate of FivePrime or any subsidiary; (ii) commission by or indictment for (A) a felony or (B) any misdemeanor (excluding minor traffic violations) involving moral turpitude, deceit, dishonesty or fraud ("indictment," for these purposes, meaning an indictment, probable cause hearing or any other procedure pursuant to which an initial determination of probable or reasonable cause with respect to such offense is made); (iii) gross negligence, willful misconduct or insubordination with respect to FivePrime, any subsidiary or any affiliate of FivePrime or any subsidiary; (iv) material breach of any of Executive's obligations under any agreement to which Executive and FivePrime or any subsidiary are a party; or (v) death or disability. With respect to item (iv), Executive will be given notice and a 30-day period in which to cure such breach, only to the extent such breach can be reasonably expected to be able to be cured within such period. Executive agrees that the breach of any non-solicitation or confidentiality obligation to FivePrime or any subsidiary shall not be curable to any extent.

6.4 " Change in Control " means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(a) Any natural person, entity or group within the meaning of Section 13(d) or 14(d) of the Securities Exchange Act of 1934 (" Exchange Act Person ") becomes the owner, directly or indirectly, of securities of FivePrime representing more than fifty percent (50%) of the combined voting power of FivePrime's then-outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (i) on account of the acquisition of securities of FivePrime by any institutional investor, any affiliate thereof or any other Exchange Act Person that acquires FivePrime's securities in a transaction or series of related transactions that are primarily a private financing transaction for FivePrime or (ii) solely because the level of ownership held by any Exchange Act Person (the " Subject Person ") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by FivePrime reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting

securities by FivePrime, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then-outstanding voting securities owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(b) There is consummated a merger, consolidation or similar transaction involving (directly or indirectly) FivePrime if, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of FivePrime immediately prior thereto do not own, directly or indirectly, either (i) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving entity in such merger, consolidation or similar transaction or (ii) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving entity in such merger, consolidation or similar transaction;

(c) The stockholders of FivePrime approve or the Board approves a plan of complete dissolution or liquidation of FivePrime, or a complete dissolution or liquidation of FivePrime shall otherwise occur; or

(d) There is consummated a sale, lease, license or other disposition of all or substantially all of the consolidated assets of FivePrime and its subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of FivePrime and its subsidiaries to an entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are owned by stockholders of FivePrime in substantially the same proportion as their ownership of FivePrime immediately prior to such sale, lease, license or other disposition.

The term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of FivePrime. Notwithstanding the foregoing or any other provision of this Agreement, the definition of Change in Control (or any analogous term) in an individual written agreement between FivePrime or any affiliate and the participant shall supersede the foregoing definition with respect to stock awards subject to such agreement (it being understood, however, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply).

6.5 " Change in Control Severance Period " means the period of 12 months commencing on the Termination Date.

6.6 " Change in Control Termination " means an " Involuntary Termination Without Cause " or " Resignation for Good Reason, " either of which occurs on, or within three (3) months prior to, or within 12 months following, the effective date of a Change in Control, provided that any such termination is a "separation from service" within the meaning of Treasury Regulation Section 1.409A-1(h). Death and disability shall not be deemed Change in Control Terminations.

6.7 " COBRA " means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

6.8 " Code " means the Internal Revenue Code of 1986, as amended.

6.9 " Company " means Five Prime Therapeutics, Inc. or, following a Change in Control, the surviving entity resulting from such transaction, or any subsequent surviving entity resulting from any subsequent Change in Control.

6.10 " Covered Termination " means an " Involuntary Termination Without Cause ", provided that any such termination is a "separation from service" within the meaning of Treasury Regulation Section 1.409A-1(h). Death, disability, and termination of employment by Executive, shall not be deemed Covered Terminations.

6.11 " Covered Termination Severance Period " means the period of six months commencing on the Termination Date.

6.12 " Involuntary Termination Without Cause " means Executive's dismissal or discharge by FivePrime for reasons other than Cause and other than as a result of death or disability.

6.13 " Pro-Rata Bonus " means 1/12 th of the greater of (i) the average annual bonus paid to Executive for the three years preceding the date of a Change in Control Termination or Covered Termination, as applicable, (or such lesser number of years during which Executive has been employed by FivePrime), or (ii) annual target cash bonus, as in effect immediately prior to a Change in Control Termination or Covered Termination, as applicable.

6.14 " Resignation for Good Reason " means Executive's resignation from all employee positions Executive then-holds with FivePrime within 60 days following any of the following events taken without Executive's consent, provided Executive has given FivePrime written notice of such event within 30 days after the first occurrence of such event and FivePrime has not cured such event within 30 days thereafter:

(a) A decrease in Executive's total target cash compensation (base and bonus) of more than 10% (i.e., a material reduction in Executive's base compensation and a material breach by FivePrime of Executive's employment terms with FivePrime), other than in connection with a comparable decrease in compensation for all comparable executives of FivePrime;

(b) Executive's duties or responsibilities are materially diminished (not simply a change in title or reporting relationships); Executive shall not be deemed to have a " Resignation for Good Reason " if FivePrime survives as a separate legal entity or business unit following the Change in Control and Executive holds materially the same position in such legal entity or business unit as Executive held before the Change in Control;

(c) An increase in Executive's round-trip driving distance of more than 50 miles from Executive's principal personal residence to the principal office or business location at which Executive is required to perform services (except for required business travel to the extent consistent with Executive's prior business travel obligations); or

(d) The failure of FivePrime to obtain a satisfactory agreement from any successor to materially assume and materially agree to perform under the terms of this Agreement.

6.15 " Termination Date " means the effective date of the Change in Control Termination or Covered Termination, as applicable.

ARTICLE 7

General Provisions

7.1 Employment Status. This Agreement does not constitute a contract of employment or impose upon Executive any obligation to remain as an employee, or impose on FivePrime any obligation (i) to retain Executive as an employee, (ii) to change the status of Executive as an at-will employee or (iii) to change FivePrime's policies regarding termination of employment.

7.2 Notices. Any notices provided hereunder must be in writing, and such notices or any other written communication shall be deemed effective upon the earlier of personal delivery (including personal delivery by facsimile) or the third day after mailing by first class mail, to FivePrime at its primary office location and to Executive at Executive's address as listed in FivePrime's payroll records. Any payments made by FivePrime to Executive under the terms of this Agreement shall be delivered to Executive either in person or at the address as listed in FivePrime's payroll records.

7.3 Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.4 Waiver. If either party should waive any breach of any provisions of this Agreement, he, she or it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

7.5 Arbitration. Unless otherwise prohibited by law or specified below, all disputes, claims and causes of action, in law or equity, arising from or relating to this Agreement or its enforcement, performance, breach, or interpretation shall be resolved solely and exclusively by final and binding arbitration held in the San Francisco Bay Area through Judicial Arbitration & Mediation Services/Endispute (" JAMS ") under the then existing JAMS employment law arbitration rules. However, nothing in this Section 7.5 is intended to prevent either party from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. Each party in any such arbitration shall be responsible for its own attorneys' fees, costs and necessary disbursement; provided , however , that in the event one party refuses to arbitrate and the other party seeks to compel arbitration by court order, if such other party prevails, it shall be entitled to recover reasonable attorneys' fees, costs and necessary disbursements. Pursuant to California Civil Code Section 1717, each party warrants that it was represented by counsel in the negotiation and execution of this Agreement, including the attorneys' fees provision herein.

7.6 Complete Agreement. This Agreement, including **Exhibit A** , **Exhibit B** and **Exhibit C** , constitutes the entire agreement between Executive and FivePrime and is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter, wholly superseding all written and oral agreements with respect to payments and benefits to Executive in the event of employment termination. It is entered into without reliance on any promise or representation other than those expressly contained herein.

7.7 Amendment or Termination of Agreement; Continuation of Agreement. This Agreement may be changed or terminated only upon the mutual written consent of FivePrime and Executive. The written consent of FivePrime to a change or termination of this Agreement must be signed by an executive officer of FivePrime (other than Executive) after such change or termination has been approved by the Board. Unless so terminated, this Agreement shall continue in effect for as long as Executive continues to be employed by FivePrime or by any surviving entity following any Change in Control. In other words, if, following a Change in Control, Executive continues to be employed by the surviving entity without a Change in Control Termination and the surviving entity then undergoes a Change in Control, following which Executive is terminated by the subsequent surviving entity in a Change in Control Termination, then Executive shall receive the benefits described in Article 2 hereof.

7.8 Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, but all of which taken together will constitute one and the same Agreement.

7.9 Headings. The headings of the Articles and Sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.10 Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by Executive, and FivePrime, and any surviving entity resulting from a Change in Control and upon any other person who is a successor by merger, acquisition, consolidation or otherwise to the business formerly carried on by FivePrime, and their respective successors, assigns, heirs, executors and administrators, without regard to whether or not such person actively assumes any rights or duties hereunder; provided , however , that Executive may not assign any duties hereunder and may not

assign any rights hereunder without the written consent of FivePrime, which consent shall not be withheld unreasonably.

7.11 ERISA. This Agreement is intended to constitute a severance agreement subject to the Employee Retirement Income Security Act of 1974, as amended (" ERISA ").

7.12 Choice of Law. To the extent not preempted by ERISA, all questions concerning the construction, validity and interpretation of this Agreement will be governed by the law of the State of California, without regard to such state's conflict of laws rules.

7.13 Construction of Agreement. In the event of a conflict between the text of this Agreement and any summary, description or other information regarding this Agreement, the text of this Agreement shall control.

7.14 Circular 230 Disclaimer. The following disclaimer is provided in accordance with the Internal Revenue Service's Circular 230 (21 C.F.R. Part 10). Any tax advice contained in this Agreement is intended to be preliminary, for discussion purposes only, and not final. Any such advice is not intended to be used for marketing, promoting or recommending any transaction or for the use of any person in connection with the preparation of any tax return. Accordingly, this advice is not intended or written to be used, and it cannot be used, by any person for the purpose of avoiding tax penalties that may be imposed on such person.

IN WITNESS WHEREOF **,** the parties have executed this Agreement on the Effective Date.

Five Prime Therapeutics, Inc.

By: /s/ Lewis T. Williams
Lewis T. Williams
President and Chief Executive Officer

/s/ Robert Sikorski
Robert Sikorski
Vice President, Global Clinical Development

Exhibit A:	Release (Individual Termination – Age 40 or Older)
Exhibit B:	Release (Individual and Group Termination – Under Age 40)
Exhibit C:	Release (Group Termination – Age 40 or Older)

Exhibit A

Release
(Individual Termination – Age 40 or Older)

Certain capitalized terms used in this Release are defined in the Executive Severance Benefits Agreement between me and Five Prime Therapeutics, Inc. (the " Agreement ") of which this Release is a part.

I hereby confirm my obligations under the Confidential Information and Innovation Assignment Agreement between FivePrime and me (or other comparable agreement that I have signed, if any).

I acknowledge that I have read and understand Section 1542 of the California Civil Code which reads as follows: **"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."** I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims provided herein.

Except as otherwise set forth in this Release, I hereby release, acquit and forever discharge FivePrime, its parents and subsidiaries, and their officers, directors, agents, servants, employees, stockholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with FivePrime), arising out of or in any way related to agreements, events, acts or conduct at any time prior to the date I execute this Release, including all such claims and demands directly or indirectly arising out of or in any way connected with my employment with FivePrime or the termination of that employment, including claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in FivePrime, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including the federal Civil Rights Act of 1964, as amended; the federal Age Discrimination in Employment Act of 1967, as amended (" ADEA "); the federal Employee Retirement Income Security Act of 1974, as amended; the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination; fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; provided , however , that nothing in this paragraph shall be construed in any way to release FivePrime from its obligation to indemnify me pursuant to FivePrime's indemnification obligation pursuant to written agreement or applicable law.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under ADEA. I also acknowledge that the consideration given under the Agreement for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing, as required by the ADEA, that: (A) my waiver and release do not apply to any rights or claims that may arise on or after the date I execute this Release; (B) I have the right to consult with an attorney prior to executing this Release; (C) I have 21 days to consider this Release (although I may choose to voluntarily execute this Release earlier); (D) I have seven days following my execution of this Release to revoke the Release by providing a written notice of revocation to FivePrime's Chief Executive Officer; and (E) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after I execute this Release (provided that I do not revoke it).

I hereby represent that I have been paid all compensation owed and for all hours worked, I have received all the leave and leave benefits and protections for which I am eligible, pursuant to the federal Family and Medical Leave Act, the California Family Rights Act, any Company policy or applicable law, and I have not suffered any on-the-job injury or illness for which I have not already filed a workers' compensation claim.

Executive:

_____

Signature

_____

Printed Name

Date: _____

Confidential Information and Innovation Assignment Agreement (for Employees)

This Confidential Information and Innovation Assignment Agreement (for Employees) (this "Agreement") is entered into between Five Prime Therapeutics, Inc., a Delaware corporation (together with any parent, subsidiary, affiliate or successor, " FivePrime "), and the undersigned person.

FivePrime has made an employment offer to you. As an employee of FivePrime, FivePrime would entrust you with Confidential Information (as defined below) and you may develop Innovations (as defined below). As a material condition to your employment with FivePrime, FivePrime requires, among other things, that you agree to the terms and conditions of this Agreement. In consideration of my employment by FivePrime and the compensation FivePrime would pay me with respect to my employment, I agree as follows:

1. Confidential Information. For purposes of this Agreement ," Confidential Information " means any and all data and information related to any aspect of the business of FivePrime, including data and information disclosed to FivePrime by third parties, that is either information not known by actual or potential competitors of FivePrime or is confidential information of FivePrime (or confidential information of third parties that have disclosed such information to FivePrime) that is disclosed or known to you in connection with your employment with FivePrime, including ideas, genes, sequences, targets, cell lines, vectors, antibodies, antigens, ligands, receptors, assays, biological materials, techniques, models, inventions, trade secrets, know-how, patent applications, processes, designs, specifications , apparatuses , equipment, algorithms, software code, databases and their contents, formulae, products or services, research, pre-clinical and development work , data and plans, financial information, procurement requirements, purchasing, manufacturing, business information, investors , employees, compensation policies, practices and related information, business and contractual relationships, term sheets, the existence and status of negotiations, agreements, business forecasts, and marketing plans and information. Confidential Information shall not include any information that you can demonstrate, by competent evidence, (a) was rightfully in your possession prior to the time FivePrime disclosed such information to you in connection with your employment;(b) was lawfully obtained by you from a third party under no obligation of confidentiality to FivePrime; or (c) becomes public knowledge through no fault or omission of you or any third party.

2. Nondisclosure; Use. During and after the termination of my employment with FivePrime, I will hold all Confidential Information in strict confidence and will not disclose, use, copy, publish, lecture upon or summarize any Confidential Information, except as necessary to carry out my assigned responsibilities as a FivePrime employee and in compliance with any policies or procedures FivePrime may adopt from time to time, including with respect to publications and other public disclosures, and in compliance with any obligations FivePrime may have to third parties. I acknowledge that the unauthorized taking or use of FivePrime's trade secrets could result in my personal liability under California Civil Code Section 3426 *et seq.* and is a crime under California Penal Code Section 499c.

3. FivePrime Property. All papers, records, data, notes, drawings, files, documents, samples, devices, products, equipment, antibodies, antigens, cells, compounds, biological materials and other materials, including copies and in whatever form, relating to the business of FivePrime that I possess, create, access or use as a result of my employment with FivePrime, whether or not confidential, are the sole and exclusive property of FivePrime. Upon termination of my employment for any reason, or otherwise upon FivePrime's request at any other time, I will promptly deliver to FivePrime all such property and materials, and will not keep in my possession, recreate, duplicate or deliver to anyone else any such property or materials.

4. Ownership of Innovations. All Innovations shall be the property of FivePrime and, to the fullest extent permitted by law, shall be "works made for hire." I hereby assign and agree to assign to FivePrime or its designee, without further consideration, the entire right, title and interest in and to all Innovations, including all rights to obtain, register, perfect, and enforce patents, copyrights, and other intellectual property rights or protections for Innovations. I will disclose promptly and in writing to the individual designated by FivePrime or to my immediate supervisor all Innovations that I have made or reduced to practice. For purposes of this Agreement, the term " Innovation " means any invention, discovery, improvement, trade secret or original work of authorship, whether or not patentable, that I discover, conceive, make, develop, reduce to practice or learn, alone or with others, in the course of my employment with FivePrime or from my use of Confidential Information. The term Innovation does not include any Excluded Inventions (as defined below). I agree to keep and maintain adequate and current records (in the form of notes, sketches, drawings and in any other form that is required by FivePrime) of all Innovations made by me during the period of my employment by FivePrime, which records shall be available to, and remain the sole property of, FivePrime at all times.

5. Excluded Innovations and Inventions.

5.1 I have disclosed on Exhibit A a complete list of all inventions, discoveries, improvements, trade secrets or original works of authorship, whether or not patentable, that I have, or I have caused to be, either alone or jointly with others, conceived, developed, or reduced to practice prior to my employment by FivePrime, in which I have an ownership interest or which I have a license to use, and that I wish to exclude from the scope of this Agreement (each, a " Pre-Existing Innovation "). If such a Pre-Existing Innovation involves the trade secrets or confidential information of any former employer or other person, I have discussed with FivePrime how such Pre-Existing Innovation should be described without violating my obligations to such former employer or other person. If no Pre-Existing Innovations are listed in Exhibit A , I represent and warrant to FivePrime that no Pre-Existing Innovations exist.

5.2 I understand that this Agreement requires disclosure, but not assignment, of any invention that qualifies fully for protection under Section 2870 of the California Labor Code (together with the Pre-Existing Innovations, the " Excluded Inventions "), a copy of which is attached hereto as Exhibit B , which pertains to rights I may have in connection with inventions that I develop entirely on my own time for which no equipment, supplies, facilities or trade secret information of FivePrime are used and (a) that do not relate to the business of FivePrime or to FivePrime's actual or demonstrably anticipated research or development, or (b) that do not result from any work performed by me for FivePrime.

5.3 I agree that I will not incorporate, or permit to be incorporated, any Excluded Inventions in any Innovation. If , in the course of my employment with FivePrime, I incorporate any Excluded Invention into an Innovation or a FivePrime process, machine or other work , I hereby grant FivePrime a non-exclusive, perpetual, fully paid and royalty-free, irrevocable and worldwide license, with rights to sublicense through multiple levels of sublicensees, to reproduce, make derivative works of, distribute, publicly perform, and publicly display in any form or medium, whether now known or later developed, make, have made, use, sell, import, offer for sale, and exercise any and all present or future rights in such Excluded Invention.

6. Assistance; Power of Attorney. During my employment and thereafter, I will assist FivePrime to obtain and enforce United States and foreign patents, copyrights and other forms of intellectual property rights or protections relating to Innovations. In the event FivePrime is unable to secure my signature on any document needed in connection with such purposes, I hereby irrevocably designate and appoint FivePrime and its duly authorized officers and agents as my agent and attorney-in-fact, which appointment is coupled with an interest, to act on my behalf to execute and file any such documents and to do all other lawfully permitted acts to further such purposes with the same legal force and effect as if executed by me.

7. Non-competition. During my employment with FivePrime, I will perform for FivePrime such duties as FivePrime may designate from time to time, devote my full time and best efforts to the business of FivePrime and not engage in any other employment, occupation, consulting or other activity that is competitive with or would conflict with the essential interests of FivePrime.

8. Non-solicitation. During my employment with FivePrime, and for twelve (12) months after the termination of my employment, regardless of the reason for termination, I will not, directly or indirectly, whether through a third party or otherwise, solicit, recruit, encourage or induce any employee or director of or consultant or contractor to FivePrime to terminate his, her or its relationship with FivePrime in order to accept or enter into any employment or
independent contractor or other business relationship with an employer, entity or person other than FivePrime.

9. Contracts with and Obligations to Third Parties. I represent and warrant that I am not bound by the terms of any agreement with any previous employer or other party that conflicts with this Agreement or requires or would require me to assign inventions that are now in existence or may be conceived or reduced to practice by me in the future. I represent and warrant that I have not entered into, and covenant that I will not enter into during the term of my employment with FivePrime, any agreement, employment, consultancy or undertaking that would restrict or impair or otherwise conflict with my performance of this Agreement or my employment with FivePrime. I will not, during my employment with FivePrime or otherwise, use or disclose to FivePrime any confidential, trade secret, or other proprietary information or material of any previous employer or other person, and I will not bring onto FivePrime's premises any such information or material of any previous employer or other person.

10. No Debarment. I understand that FivePrime is engaged in the biotechnology business, which is regulated by the United States Food and Drug Administration ("FDA"}, among other governmental agencies. I represent and warrant to FivePrime that I am not, and have never been, debarred by the FDA or any other governmental agency, including of jurisdictions outside the United States, associated with the regulation of pharmaceuticals or biologics, including with respect to clinical and non-clinical research, development, manufacturing, marketing and sales. If at any time during my employment with FivePrime I become the subject of any proceeding for disqualification, debarment, delisting or exclusion, I will immediately inform FivePrime of such proceeding.

11. No Employment Agreement. I agree that my employment by FivePrime is not for a definite period of time. Rather, my employment relationship with FivePrime is one of employment at will and my continued employment is not obligatory by either myself or FivePrime. I acknowledge that nothing in this Agreement would in any way alter the at-will nature of my employment with FivePrime.

12. Reaffirmation . I will upon the termination of my employment with FivePrime reaffirm all of my obligations set forth in this Agreement and certify to FivePrime that I have performed all of my obligations in this Agreement that by their terms are to be performed on or before the termination of my employment with FivePrime.

13. Notification to Other Persons. I hereby grant consent to FivePrime notifying any of my subsequent employers or entities or persons that may engage me as an employee, consultant, independent contractor, temporary worker, partner, director, officer or agent about my rights and obligations under this Agreement.

14. General Provisions.

14.1 Severability. The provisions of this Agreement are severable. If any term of this Agreement is held invalid or unenforceable, it shall be adjusted rather than voided, if possible, in

order to achieve the intent of the parties to the extent possible. In any event, all other provisions of this Agreement, shall be deemed valid, and enforceable to the fullest extent possible.

14.2 Injunctive Relief. I agree that, because my services to FivePrime are personal and because I will have access to Confidential Information, damages may not adequately remedy any breach of my obligations under this Agreement and that FivePrime may (without limitation of any other rights or remedies otherwise available to FivePrime and without the necessity of posting a bond) obtain an injunction or other equitable relief from any court of competent jurisdiction prohibiting the continuance or recurrence of any such breach.

14.3 Governing Law; Consent to Jurisdiction. This Agreement and all claims relating to or arising out of this Agreement or the breach thereof shall be governed by and construed in accordance with the laws of the state of California without reference to its conflict of laws principles. I hereby submit to the jurisdiction of the state courts and Federal courts located in San Francisco County, California, for purposes of any action arising from or related to this Agreement and agree that such courts shall be deemed to be a convenient forum. I agree that service upon me in any such action or proceeding may be made by first class mail, certified or registered, to my address as last appearing on the records of FivePrime.

14.4 Survival; Binding Effect. This Agreement shall survive the termination of my employment and the assignment of this Agreement by FivePrime to any successor-in-interest or other assignee. This Agreement shall bind and inure to the benefit of (a) FivePrime's successors and assigns and (b) your heirs, executors, administrators and other legal representatives.

14.5 Waiver. Any waiver or failure to enforce any provision of this Agreement on one occasion will not constitute a waiver of any other provision or of such provision on any other occasion.

14.6 No Assignment. You may not assign or transfer this Agreement or any right or obligation hereunder.

14.7 Headings. The Section headings in this Agreement are for reference purposes only and shall not affect in any way the meaning, construction or interpretation of this Agreement.

14.8 Entire Agreement; Modifications. This Agreement contains the entire agreement between FivePrime and me concerning the subject matter hereof and supersedes any and all prior and contemporaneous negotiations, correspondence, understandings, and agreements, whether oral or written, respecting that subject matter. All modifications to this Agreement must be in writing and signed by the party against whom enforcement of such modification is sought.

I ACKNOWLEDGE THAT I HAVE HAD THE OPPORTUNITY TO SEEK THE ADVICE OF INDEPENDENT LEGAL COUNSEL. THIS AGREEMENT SHALL NOT BE CONSTRUED AGAINST ANY PARTY BY REASON OF THE DRAFTING OR PREPARATION HEREOF.

I acknowledge that I have read and understand this Agreement and have executed this Confidential Information and Innovation Assignment Agreement (for Employees) as of August 24, 2014.

/s/ Robert Sikorski

Signature

Address: 18316 Tapwood Road
Boyds, MD 20841

E-mail: email@robertsikorski.com

/s/ Robert Sikorski

Print Name

AGREED AND ACKNOWLEDGED:

Five Prime Therapeutics, Inc.

By: /s/ Lauretta Cesario
Name: Lauretta Cesario
Title: Vice President, Human Resources

Exhibit A

Pre-Existing Innovations

Please identify below all Pre-Existing Innovations, in which you have an ownership interest or which you have a license to use, and that you wish to exclude from the scope of this Agreement. If any such Pre-Existing Innovation involves the trade secrets or confidential information of any former employer or other person, discuss with FivePrime how such Pre Existing Innovation should be described in order to avoid violating any obligations you have to any such former employer or other person. If you do not list any Pre-Existing Innovations below, you are representing and warranting to FivePrime that no Pre-Existing Innovations exist.

		Identifying Number Or Brief Description
Personal		
Software 1	3/2010	Custom designed software to analyze clinical trial data
Software 2	6/2011	Custom designed software to: - review journal articles - review clinical trials - review press releases
Software 3	4/2005	Custom designed software to manage projects and timelines
Software 4	7/2007	Custom designed software to manage email

Medimmune
Additional disclosures to be discussed with FivePrime, as described above.

Exhibit B

California Labor Code

§ 2870 Application of provision providing that employee shall assign or offer to assign rights in invention to employer.

(a) Any provision in an employment agreement which provides that an employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either:

(1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer.

(2) Result from any work performed by the employee for the employer.

(b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable.

Exhibit B

Release
(Individual and Group Termination – Under Age 40)

Certain capitalized terms used in this Release are defined in the Executive Severance Benefits Agreement between me and Five Prime Therapeutics, Inc. (the " Agreement ") of which this Release is a part.

I hereby confirm my obligations under the Confidential Information and Innovation Assignment Agreement between FivePrime and me (or other comparable agreement that I have signed, if any).

I acknowledge that I have read and understand Section 1542 of the California Civil Code which reads as follows: **"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."** I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims provided herein.

Except as otherwise set forth in this Release, I hereby release, acquit and forever discharge FivePrime, its parents and subsidiaries, and their officers, directors, agents, servants, employees, stockholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with FivePrime), arising out of or in any way related to agreements, events, acts or conduct at any time prior to the date I execute this Release, including all such claims and demands directly or indirectly arising out of or in any way connected with my employment with FivePrime or the termination of that employment, including claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in FivePrime, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including the federal Civil Rights Act of 1964, as amended; the federal Employee Retirement Income Security Act of 1974, as amended; the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination; fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; provided , however , that nothing in this paragraph shall be construed in any way to release FivePrime from its obligation to indemnify me pursuant to FivePrime's indemnification obligation pursuant to written agreement or applicable law.

I acknowledge that the consideration given under the Agreement for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing that: (A) my waiver and release do not apply to any rights or claims that may arise on or after the date I execute this Release; (B) I have the right to consult with an attorney prior to executing this Release; and (C) I have 21 days to consider this Release (although I may choose to voluntarily execute this Release earlier).

I hereby represent that I have been paid all compensation owed and for all hours worked, I have received all the leave and leave benefits and protections for which I am eligible, pursuant to the federal Family and Medical Leave Act, the California Family Rights Act, any Company policy or applicable law, and I have not suffered any on-the-job injury or illness for which I have not already filed a workers' compensation claim.

Executive:

_____

Signature

_____

Printed Name

Date: _____

Exhibit C

Release
(Group Termination – Age 40 or Older)

Certain capitalized terms used in this Release are defined in the Executive Severance Benefits Agreement between me and Five Prime Therapeutics, Inc. (the " Agreement ") of which this Release is a part.

I hereby confirm my obligations under the Confidential Information and Innovation Assignment Agreement between FivePrime and me (or other comparable agreement that I have signed, if any).

I acknowledge that I have read and understand Section 1542 of the California Civil Code which reads as follows: **"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."** I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims provided herein.

Except as otherwise set forth in this Release, I hereby release, acquit and forever discharge FivePrime, its parents and subsidiaries, and their officers, directors, agents, servants, employees, stockholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with FivePrime), arising out of or in any way related to agreements, events, acts or conduct at any time prior to the date I execute this Release, including all such claims and demands directly or indirectly arising out of or in any way connected with my employment with FivePrime or the termination of that employment, including claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in FivePrime, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including the federal Civil Rights Act of 1964, as amended; the federal Age Discrimination in Employment Act of 1967, as amended (" ADEA "); the federal Employee Retirement Income Security Act of 1974, as amended; the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination; fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; provided , however , that nothing in this paragraph shall be construed in any way to release FivePrime from its obligation to indemnify me pursuant to FivePrime's indemnification obligation pursuant to written agreement or applicable law.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under the ADEA. I also acknowledge that the consideration given under the Agreement for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing, as required by the ADEA, that: (A) my waiver and release do not apply to any rights or claims that may arise on or after the date I execute this Release; (B) I have the right to consult with an attorney prior to executing this Release; (C) I have 45 days to consider this Release (although I may choose to voluntarily execute this Release earlier); (D) I have seven days following my execution of this Release to revoke the Release by providing a written notice of revocation to FivePrime's Chief Executive Officer; (E) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after I execute this Release; and (F) I have received with this Release the required written disclosure for a "group

termination" under the ADEA, including a detailed list of the job titles and ages of all employees who were terminated in this group termination and the ages of all employees of FivePrime in the same job classification or organizational unit who were not terminated.

I hereby represent that I have been paid all compensation owed and for all hours worked, I have received all the leave and leave benefits and protections for which I am eligible, pursuant to the federal Family and Medical Leave Act, the California Family Rights Act, any Company policy or applicable law, and I have not suffered any on-the-job injury or illness for which I have not already filed a workers' compensation claim.

Executive:

_____
Signature

_____
Printed Name

Date: _____

Exhibit 10.15

January 4, 2016

Kevin Paul Baker, Ph.D.
1445 Alvarado Avenue
Burlingame, CA 94010

Dear Kevin,

We are so very pleased to extend to you an offer of re-employment with Five Prime Therapeutics, Inc. as Senior Vice President, Development Science, Preclinical Development & Manufacturing reporting directly to me.

We would like for your full-time employment with FivePrime to begin at your earliest convenience, but no later than Monday, February 1, 2016.

We would pay you a base salary of $330,000, paid semi-monthly less applicable taxes and withholding. Once you begin full-time employment, you would be eligible to participate in FivePrime's benefit plans and programs available to all regular, full-time employees. These benefits currently include medical, vision, dental, disability, 401(k) investment plan, Employee Stock Purchase Plan, Section 125 (flex spending), Section 132 (mass transit) and paid time-off programs.

Effective with your rehire date, you would be eligible to participate in FivePrime's annual cash bonus program and your annual target bonus amount would be 35% of your annual base salary. We would determine your actual annual performance bonus based on an assessment of your meeting personal goals (40% weighting) as well as FivePrime's attainment of corporate goals (60% weighting). Please note, effective January 1, 2016, we have made the changes noted above in the weighting of personal and corporate goals at the Senior VP level. Corporate achievement is determined by FivePrime's Board of Directors.

FivePrime is also offering you a hiring bonus of $100,000, the payment of which is conditioned on your acceptance of our re-employment offer and the start of your re-employment with us. We would pay you the hiring bonus with your first paycheck. You agree that if you voluntarily resign your employment with FivePrime or if FivePrime terminates your employment for cause, you would promptly repay to FivePrime (i) all of the hiring bonus, if such employment termination occurred prior to the one-year anniversary of the start of your re-employment; or (ii) 50% of the hiring bonus, if such employment termination occurred prior to the two-year anniversary of the start of your re-employment.

As an officer of FivePrime, we would provide certain severance and change in control benefits to you under our Executive Severance Benefits Agreement, which we would enter into with you in connection with your start of re-employment with us. A template of this agreement is attached.

Subject to approval by FivePrime's Board of Directors, we would grant you an incentive stock option to purchase 75,000 shares of common stock of FivePrime. The exercise price per share would be the fair market value of common stock at the closing price on the date of grant. We would issue your stock option award under our 2013 Omnibus Incentive Plan. Your stock option award would be subject to a Stock Option Agreement.

In addition, subject to approval by FivePrime's Board of Directors, we would grant you 75,000 shares of restricted common stock under our 2013 Omnibus Incentive Plan. Your restricted stock award would be subject to a Restricted Stock Agreement. Subject to your continued employment with FivePrime and the

other terms and conditions of your restricted stock award, 50% of your shares of restricted stock would vest on the second anniversary of your re-employment date, and the remaining 50% of your shares of restricted stock would vest on the third anniversary of your re-employment date.

As a condition of our offer of re-employment, we require you to update, sign and comply with our Confidential Information and Innovation Assignment Agreement, which among other things prohibits unauthorized use or disclosure of FivePrime's confidential information. During your tenure with FivePrime, we would expect you to also abide by FivePrime's policies and procedures. Federal law requires us to verify your identity and eligibility for employment in the United States. Accordingly, our offer of employment is also conditioned upon this verification.

Your employment with FivePrime would not be for a set term and you would be an at-will employee.
You would be free to terminate your employment with FivePrime at any time and for any reason whatsoever simply by notifying us. Likewise, we would be free to terminate your employment at any time for any reason whatsoever, with or without cause or advance notice. This at-will employment relationship cannot be changed except in writing and signed by FivePrime's Chief Executive Officer.

This letter, along with the Confidential Information and Innovation Assignment Agreement, supersedes any prior representations or agreements, whether written or oral, with respect to our offer of re-employment to you. This letter may not be modified or amended except by a written agreement, signed by FivePrime and you.

To accept this offer of re-employment, please sign, date and return this letter and the Confidential Information and Innovation Assignment Agreement by the end of the business day on Friday, January 8, 2016. Please either fax the document to (415) 520-9842, attention Lauretta Cesario, or email a scanned copy to eFax-HR@fiveprime.com .

Again, Kevin, I am so happy to make this offer to you and have you back with us at FivePrime. I have the utmost confidence in your leadership and know you will be an essential strategic partner at this stage of the company's development. We all look forward to having you back on our team as we continue to build a vibrant and successful company.

Sincerely,

/s/ Lewis T. Williams
Lewis T. "Rusty" Williams, M.D., Ph.D.
Founder, President and Chief Executive Officer

Accepted:

/s/ Kevin Baker
Kevin Paul Baker, Ph.D.

7 th Jan 2016
Date

1 Feb 2016
Anticipated Start Date

Exhibit 10.23

Executive Severance Benefits Agreement

This Executive Severance Benefits Agreement (this " Agreement ") is entered into as of 9.17. 201 4 (the " Effective Date "), between Robert Sikorski , an individual (" Executive ") and Five Prime Therapeutics, Inc. (" FivePrime "). This Agreement is intended to provide Executive with certain compensation and benefits in the event that Executive is subject to certain qualifying terminations of employment. Certain capitalized terms used in this Agreement are defined in Article 6.

FivePrime and Executive hereby agree as follows:

ARTICLE 1

Scope of and Consideration for this Agreement

1.1 FivePrime desires to employ Executive, or to continue Executive's employment, in the position of Vice President, Global Clinical Development, and Executive wishes to be employed, or continue to be employed, by FivePrime in such position.

1.2 FivePrime and Executive wish to set forth the compensation and benefits that Executive shall be entitled to receive upon a Change in Control Termination or a Covered Termination.

1.3 The duties and obligations of FivePrime to Executive under this Agreement shall be in consideration for Executive's employment with FivePrime (and if Executive is a continuing employee, his or her past services to FivePrime), and, with respect to the benefits described in Article 2 and Article 3, Executive's compliance with the limitations and conditions on benefits as described in Article 4, including the execution of an effective Release, return of Company property and continued compliance with the Restrictive Covenants.

1.4 This Agreement shall supersede any other policy, plan, program or arrangement, including any contract between Executive and any entity, relating to severance benefits payable by FivePrime to Executive in connection with a Change in Control Termination or Covered Termination.

ARTICLE 2

Change in Control Severance Benefits

2.1 Severance Benefits. Upon a Change in Control Termination, and subject to the limitations and conditions set forth in this Agreement, Executive shall be eligible to receive the benefits set forth in this Article 2.

2.2 Salary Continuance. Executive shall receive, as severance, an amount equal to Executive's Base Salary and Pro-Rata Bonus for that number of months in the Change in Control Severance Period, payable over such number of months immediately following the Termination Date in accordance with FivePrime's payroll schedule then in effect. Except as set forth in Article 4, the payments provided for in this Section 2.2 shall commence with the first regularly scheduled payroll pay date following the Termination Date.

2.3 Health Continuation Coverage .

(a) Provided that Executive is eligible and has made the necessary elections for continuation coverage pursuant to COBRA under a health, dental, or vision plan sponsored by FivePrime, FivePrime shall pay the applicable premiums (inclusive of premiums for Executive's dependents for such health, dental, or vision plan coverage as in effect immediately prior to the date of the Change in Control Termination) for such continued health, dental, or vision plan coverage following the date of the Change in Control Termination for up to the number of months equal to the Change in Control Severance Period (but in no event after such time as Executive is eligible for coverage under a health, dental or vision insurance plan of a subsequent employer or as Executive and Executive's dependents are no longer eligible for COBRA coverage). Such coverage shall be counted as coverage pursuant to COBRA. FivePrime shall have no obligation in respect of any premium payments (or any other payments in respect of health, dental, or vision coverage from FivePrime) following the effective date of the Executive's coverage by a health, dental, or vision insurance plan of a subsequent employer. Executive shall be required to notify FivePrime immediately if Executive becomes covered by a health, dental, or vision insurance plan of a subsequent employer. If Executive and Executive's dependents continue coverage pursuant to COBRA following the conclusion of the Change in Control Severance Period, Executive will be responsible for the entire payment of such premiums required under COBRA for the duration of the COBRA period.

(b) For purposes of this Section 2.3, (i) references to COBRA shall be deemed to refer also to analogous provisions of state law, and (ii) any applicable insurance premiums that are paid by FivePrime shall not include any amounts payable by Executive under a Code Section 125 health care reimbursement plan, which amounts, if any, are the sole responsibility of Executive.

2.4 Stock Awards. Upon a Change in Control Termination, (i) the vesting and exercisability of all outstanding options to purchase shares of common stock of FivePrime (or stock appreciation rights or other rights with respect to stock of FivePrime issued pursuant to any equity incentive plan of FivePrime) that are held by Executive on the Termination Date shall be accelerated in full, and (ii) any reacquisition or repurchase rights held by FivePrime with respect to common stock issued or issuable (or with respect to other rights with respect to stock of FivePrime issued or issuable) pursuant to any other stock award granted to Executive pursuant to any equity incentive plan of FivePrime shall lapse.

ARTICLE 3

Covered Termination Severance Benefits

3.1 Severance Benefits. Upon a Covered Termination, and subject to the limitations and conditions set forth in this Agreement, Executive shall be eligible to receive the benefits set forth in this Article 3.

3.2 Salary Continuance. Executive shall receive, as severance, an amount equal to Executive's Base Salary and Pro-Rata Bonus for that number of months in the Covered Termination Severance Period, payable over such number of months immediately following the Termination Date in accordance with FivePrime's payroll schedule then in effect. Except as set forth in Article 4, the payments provided for in this Section 3.2 shall commence with the first regularly scheduled payroll pay date following the Termination Date.

3.3 Health Continuation Coverage .

(a) Provided that Executive is eligible and has made the necessary elections for continuation coverage pursuant to COBRA under a health, dental, or vision plan sponsored by FivePrime, FivePrime shall pay for the applicable premiums (inclusive of premiums for Executive's dependents for such health, dental, or vision plan coverage as in effect immediately prior to the date of the Covered Termination) for such continued health, dental, or vision plan coverage following the date of the Covered Termination for up to the number of months equal to the Covered Termination Severance Period (but in no event after such time as Executive is eligible for coverage under a health, dental or vision insurance plan of a subsequent employer or as Executive and Executive's dependents are no longer eligible for COBRA coverage). Such coverage shall be counted as coverage pursuant to COBRA. FivePrime shall have no obligation in respect of any premium payments (or any other payments in respect of health, dental, or vision coverage from FivePrime) following the effective date of the Executive's coverage by a health, dental, or vision insurance plan of a subsequent employer. Executive shall be required to notify FivePrime immediately if Executive becomes covered by a health, dental, or vision insurance plan of a subsequent employer. If Executive and Executive's dependents continue coverage pursuant to COBRA following the conclusion of the Covered Termination Severance Period, Executive will be responsible for the entire payment of such premiums required under COBRA for the duration of the COBRA period.

(b) For purposes of this Section 3.3, (i) references to COBRA shall be deemed to refer also to analogous provisions of state law, and (ii) any applicable insurance premiums that are paid by FivePrime shall not include any amounts payable by Executive under a Code Section 125 health care reimbursement plan, which amounts, if any, are the sole responsibility of Executive.

3.4 Stock Awards. Upon a Covered Termination, (i) the vesting and exercisability of all unvested shares subject to outstanding options to purchase

FivePrime's common stock (or stock appreciation rights or other righ ts with respect to stock of FivePrime issued pursuant to any equity incentive plan of FivePrime) that are held by Executive on the Termination Date shall be accelerated by fifty percent (50%), and (ii) any reacquisition or repurchase rights held by FivePri me with respect to common stock issued or issuable (or with respect to other rights with respect to stock of FivePrime issued or issuable) pursuant to any other stock award granted to Executive pursuant to any equity incentive plan of FivePrime shall lapse with respect to fifty percent (50%) of those shares then unvested as of the Termination Date.

ARTICLE 4

Limitations and Conditions on Benefits

4.1 Rights Conditioned on Compliance. Executive's rights to receive all severance benefits described in Article 2 and Article 3 shall be conditioned upon and subject to Executive's compliance with the limitations and conditions on benefits as described in this Article 4.

4.2 Continuation of Service Until Date of Termination. Executive shall continue to provide service to FivePrime in good faith until the Termination Date, unless such performance is otherwise excused in writing by FivePrime.

4.3 Release Prior to Payment of Benefits. Upon the occurrence of a Change in Control Termination or a Covered Termination, as applicable, and prior to the provision or payment of any benefits under this Agreement on account of such Change in Control Termination or Covered Termination, as applicable, Executive must execute a general waiver and release in substantially the form attached hereto and incorporated herein as **Exhibit A** , **Exhibit B** , or **Exhibit C** , as appropriate (each a " Release "), and such release must become effective in accordance with its terms, but in n o event later than 60 days following the Termination Date. No amount shall be paid prior to such date . Instead, on the 60 th day following the Termination Date, FivePrime will pay Executive the severance amount that Executive would otherwise have received on or prior to such date but for the delay in payment related to the effectiveness of the Release, with the balance of the severance amount being paid as originally scheduled . FivePrime may modify the Release in its discretion to comply with changes in applicable law at any time prior to Executive's execution of such Release. Such Release shall specifically relate to all of Executive's rights and claims in existence at the time of such execution and shall confirm Executive's obligations under Executive's Proprietary Information and Inventions Agreement (or any successor agreement thereto) and any similar obligations under applicable law. It is understood that, as specified in the applicable Release, Executive has a certain number of calendar days to consider whether to execute such Release. If Executive does not execute such Release within the applicable period, no benefits shall be provided or payable under, and Executive shall have no further rights, title or interests in or to any severance benefits or payments pursuant to, this Agreement. It is further understood that if Executive is age 40 or older at the time of a Change in Control Termination or a Covered Termination, as applicable, Executive may revoke the applicable Release within seven calendar days after its

execution by Executive. If Executive revokes such Release within such subsequent seven-day period, no benefits shall be provided or payable under this Agreement pursuant to such Change in Control Termination or Covered Termination, as appl icable.

4.4 Return of Company Property. Not later than the Termination Date, Executive shall return to FivePrime all documents (and all copies thereof) and other property belonging to FivePrime that Executive has in his or her possession or control. The documents and property to be returned include all files, correspondence, email, memoranda, notes, notebooks, records, plans, forecasts, reports, studies, analyses, compilations of data, proposals, agreements, financial information, research and development information, marketing information, operational and personnel information, databases, computer-recorded information, tangible property and equipment (including computers, facsimile machines, mobile telephones, and servers), credit cards, entry cards, identification badges and keys; and any materials of any kind that contain or embody any proprietary or confidential information of FivePrime (and all reproductions thereof in whole or in part). Executive agrees to make a diligent search to locate any such documents, property and information. If Executive has used any personally owned computer, server, or e-mail system to receive, store, review, prepare or transmit any Company confidential or proprietary data, materials or information, then within 10 business days after the Termination Date, Executive shall provide FivePrime with a computer-useable copy of all such information and then permanently delete and expunge such confidential or proprietary information from those systems. Executive agrees to provide FivePrime access to Executive's system as requested to verify that the necessary copying and/or deletion is done.

4.5 Cooperation and Continued Compliance with Restrictive Covenants.

(a) From and after the Termination Date, Executive shall cooperate fully with FivePrime in connection with its actual or contemplated defense, prosecution, or investigation of any existing or future litigation, arbitrations, mediations, claims, demands, audits, government or regulatory inquiries, or other matters arising from events, acts, or failures to act that occurred during the time period in which Executive was employed by FivePrime (including any period of employment with an entity acquired by FivePrime). Such cooperation includes being available upon reasonable notice, without subpoena, to provide accurate and complete advice, assistance and information to FivePrime, including offering and explaining evidence, providing truthful and accurate sworn statements, and participating in discovery and trial preparation and testimony. Executive also agrees to promptly send FivePrime copies of all correspondence (for example, but not limited to, subpoenas) received by Executive in connection with any such legal proceedings, unless Executive is expressly prohibited by law from so doing. FivePrime will reimburse Executive for reasonable out-of-pocket expenses incurred in connection with any such cooperation (excluding foregone wages, salary, or other compensation) within 30 days of Executive's timely presentation of appropriate documentation thereof, in accordance with FivePrime's standard reimbursement policies and procedures, and will make reasonable efforts to accommodate Executive's scheduling needs. To the extent that any taxable reimbursements of expenses are provided hereunder, they shall be made or provided in

accordance with Section 409A of the Code, including the following provisions: (i) the amount of any such expense reimbursement provided during Executive's taxable year shall not affect any expenses eligible for reimbursement in any other taxable year; (ii) the reimbursement of the eligible expense shall be made no later than the last day of Executive's taxable year that immediately follows the taxable year in which the expense was incurred; and (iii) the right to any reimbursemen t shall not be subject to liquidation or exchange for another benefit or payment .

(b) From and after the Termination Date, Executive shall continue to abide by all of the terms and provisions of the Confidential Information and Innovation Assignment Agreement between FivePrime and Executive (and any other comparable agreement signed by Executive), in accordance with its terms.

(c) During the Severance Period, Executive will not carry on any business or activity (whether directly or indirectly, as a partner, stockholder, principal, agent, director, affiliate, employee or consultant) that is directly competitive with the business conducted by FivePrime, nor engage in any other activities that conflict with Executive's continuing obligations to FivePrime. For the purposes of this Agreement, Executive and FivePrime agree that research and development directed toward clinical or commercial stage products or product candidates that FivePrime is actively pursuing on the Termination Date will be considered competitive with the business of FivePrime. Before commencing any participation in any business or activity during the Change in Control Severance Period or Covered Termination Severance Period, as applicable, Executive shall submit advance written notice to the Board describing the nature of the proposed business or activity and the general scope of the business of the entity or individual for which Executive is proposing to perform the work activity or in whose business Executive is proposing to participate in some manner, and FivePrime shall provide a written response within 10 business days indicating whether it consents to the proposed business activity. Failure to respond within this 10 business day period shall constitute consent by FivePrime to the proposed business activity. Notwithstanding the above restrictions in this Section 4.5(c), Executive shall not be prohibited from being a passive stockholder of up to 1% of the public stock of a competitive entity.

(d) Executive acknowledges and agrees that Executive's obligations under this Section 4.5 are an essential part of the consideration Executive is providing hereunder in exchange for which and in reliance upon which FivePrime has agreed to provide the payments and benefits under this Agreement. Executive further acknowledges and agrees that Executive's violation of Section 4.5 inevitably would involve use or disclosure of FivePrime's proprietary and confidential information. Accordingly, Executive agrees that Executive will forfeit, effective as of the date of any breach, any right, entitlement, claim or interest in or to any unpaid portion of the severance payments or benefits provided in Article 2 or Article 3.

4.6 Parachute Payments.

(a) Parachute Payment Limitation . If any payment or benefit (including payments and benefits pursuant to this Agreement) Executive would receive in connection with a Change in Control from FivePrime or otherwise (" Payment ") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the " Excise Tax "), then FivePrime shall cause to be determined, before any amounts of the Payment are paid to Executive, which of the following two alternative forms of payment shall be paid to Executive: (i) payment in full of the entire amount of the Payment (a " Full Payment "), or (ii) payment of only a part of the Payment so that Executive receives the largest payment possible without the imposition of the Excise Tax (a " Reduced Payment "). A Full Payment shall be made in the event that the quotient obtained by dividing (i) the excess of (a) the Full Payment, over (b) the Reduced Payment, by (ii) the Reduced Payment, is greater than ten percent (10%). A Reduced Payment shall be made in the event that the quotient obtained by dividing (i) the excess of (a) the Full Payment, over (b) the Reduced Payment, by (ii) the Reduced Payment, is less than or equal to ten percent (10%). If a Reduced Payment is made, (i) the Payment shall be paid only to the extent permitted under the Reduced Payment alternative, and Executive shall have no rights to any additional payments and/or benefits constituting the Payment, and (ii) reduction in payments and/or benefits shall occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive. In the event that acceleration of compensation from Executive's equity awards is to be reduced, such acceleration of vesting shall be canceled in the reverse order of the date of grant.

(b) The independent registered public accounting firm engaged by FivePrime for general audit purposes as of the day prior to the effective date of the Change in Control shall make all determinations required to be made under this Section 4.6. If the independent registered public accounting firm so engaged by FivePrime is serving as accountant or auditor for the individual, entity or group effecting the Change in Control, FivePrime shall appoint a nationally recognized independent registered public accounting firm to make the determinations required hereunder. FivePrime shall bear all expenses with respect to the determinations by such independent registered public accounting firm required to be made hereunder.

(c) The independent registered public accounting firm engaged to make the determinations hereunder shall provide its calculations, together with detailed supporting documentation, to FivePrime and Executive within 15 calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by FivePrime or Executive) or such other time as requested by FivePrime or Executive. If the independent registered public accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it shall furnish FivePrime and Executive with an opinion reasonably acceptable to Executive that no Excise Tax will be imposed with respect to such Payment. Any

good faith det erminations of the accounting firm made hereunder shall be final, binding and conclusive upon FivePrime and Executive.

4.7 Certain Reductions and Offsets. To the extent that any federal, state or local laws, including the Worker Adjustment and Retraining Notification Act (the " WARN Act ") or any other so-called "plant closing" laws, require FivePrime to give advance notice or make a payment of any kind to Executive because of Executive's involuntary termination due to a layoff, reduction in force, plant or facility closing, sale of business, change in control, or any other similar event or reason, the benefits payable under this Agreement shall be correspondingly reduced. The benefits provided under this Agreement are intended to satisfy any and all statutory obligations that may arise out of Executive's involuntary termination of employment for the foregoing reasons, and the parties shall construe and enforce the terms of this Agreement accordingly.

4.8 Mitigation. Except as otherwise specifically provided herein, Executive shall not be required to mitigate damages or the amount of any payment provided under this Agreement by seeking other employment or otherwise, nor shall the amount of any payment provided for under this Agreement be reduced by any compensation earned by Executive as a result of employment by another employer or by any retirement benefits received by Executive after the date of a Change in Control Termination or Covered Termination (except as expressly provided in Sections 2.3 and 3.3 above).

4.9 Indebtedness of Executive . If Executive is indebted to FivePrime on the effective date of a Change in Control Termination or Covered Termination, FivePrime reserves the right to offset any severance payments and benefits under this Agreement by the amount of s uch indebtedness.

4.10 Application of Section 409A . It is intended that each installment of the payments provided for in this Agreement is a separate "payment" for purposes of Treasury Regulation Section 1.409A-2(b)(2)(i). For the avoidance of doubt, it is intended that the payments under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Code Section 409A provided under Treasury Regulation Sections 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9). However, if FivePrime (or, if applicable, the successor entity thereto) determines that the severance payments provided under this agreement (the " Agreement Payments ") constitute "deferred compensation" under Section 409A and Executive is, on the termination of service, a "specified employee" of FivePrime or any successor entity thereto, as such term is defined in Section 409A(a)(2)(B)(i) of the Code, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Code Section 409A, the timing of the Agreement Payments shall be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's separation from service or (ii) the date of Executive's death (such earlier date, the " Delayed Initial Payment Date "), FivePrime (or the successor entity thereto, as applicable) shall (A) pay Executive a lump sum amount equal to the sum of the Agreement Payments that she would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Agreement Payments had not been so delayed pursuant to this paragraph and (B) commence paying the

balance of the Agreement Payments in accordance with the applicable payment schedule s set forth in this agreement.

4.11 Tax Withholding . All payments under this Agreement shall be subject to applicable withholding for federal, state and local income and employment taxes.

ARTICLE 5

Other Rights and Benefits

Nothing in this Agreement shall prevent or limit Executive's continuing or future participation in any benefit, bonus, incentive or other plans, programs, policies or practices provided by FivePrime and for which Executive may otherwise qualify, nor shall anything herein limit or otherwise affect such rights as Executive may have under other agreements with FivePrime except as provided in Section 1.4 above. Except as otherwise expressly provided herein, amounts that are vested benefits or that Executive is otherwise entitled to receive under any plan, policy, practice or program of FivePrime at or subsequent to the date of a Change in Control shall be payable in accordance with such plan, policy, practice or program.

ARTICLE 6

Definitions

Unless otherwise provided, for purposes of this Agreement, the following definitions shall apply:

6.1 " Base Salary " means 1/12 th of the greater of (i) Executive's annual base salary (excluding incentive pay, premium pay, commissions, overtime, bonuses, and other forms of variable compensation) as in effect immediately prior to a Change in Control Termination or a Covered Termination, as applicable, or (ii) in the case of a Change in Control Termination, Executive's annual base salary (excluding incentive pay, premium pay, commissions, overtime, bonuses, and other forms of variable compensation) as in effect immediately prior to a Change in Control.

6.2 " Board " means the Board of Directors of FivePrime.

6.3 " Cause " means Executive's: (i) dishonest statements or acts with respect to FivePrime, any subsidiary or any affiliate of FivePrime or any subsidiary; (ii) commission by or indictment for (A) a felony or (B) any misdemeanor (excluding minor traffic violations) involving moral turpitude, deceit, dishonesty or fraud ("indictment," for these purposes, meaning an indictment, probable cause hearing or any other procedure pursuant to which an initial determination of probable or reasonable cause with respect to such offense is made); (iii) gross negligence, willful misconduct or insubordination with respect to FivePrime, any subsidiary or any affiliate of FivePrime or any subsidiary; (iv) material breach of any of Executive's obligations under any agreement to which Executive and FivePrime or any subsidiary are a party; or (v) death or disability. With respect to item (iv), Executive will be given notice and a 30-day period in which to cure

such breach, only to the extent such breach can be reasonably expected to be able to be cure d within such period. Executive agrees that the breach of any non-solicitation or confidentiality obligation to FivePrime or any subsidiary shall not be curable to any extent.

6.4 " Change in Control " means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(a) Any natural person, entity or group within the meaning of Section 13(d) or 14(d) of the Securities Exchange Act of 1934 (" Exchange Act Person ") becomes the owner, directly or indirectly, of securities of FivePrime representing more than fifty percent (50%) of the combined voting power of FivePrime's then-outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (i) on account of the acquisition of securities of FivePrime by any institutional investor, any affiliate thereof or any other Exchange Act Person that acquires FivePrime's securities in a transaction or series of related transactions that are primarily a private financing transaction for FivePrime or (ii) solely because the level of ownership held by any Exchange Act Person (the " Subject Person ") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by FivePrime reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by FivePrime, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then-outstanding voting securities owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(b) There is consummated a merger, consolidation or similar transaction involving (directly or indirectly) FivePrime if, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of FivePrime immediately prior thereto do not own, directly or indirectly, either (i) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving entity in such merger, consolidation or similar transaction or (ii) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving entity in such merger, consolidation or similar transaction;

(c) The stockholders of FivePrime approve or the Board approves a plan of complete dissolution or liquidation of FivePrime, or a complete dissolution or liquidation of FivePrime shall otherwise occur; or

(d) There is consummated a sale, lease, license or other disposition of all or substantially all of the consolidated assets of FivePrime and its subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of FivePrime and its subsidiaries to an entity, more than fifty

percent (50%) of the combined voting power of the voting securities of which are owned by stockholders of FivePrime in substantially the same proportion as their ownership of FivePrime immedi ately prior to such sale, lease, license or other disposition.

The term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of FivePrime. Notwithstanding the foregoing or any other provision of this Agreement, the definition of Change in Control (or any analogous term) in an individual written agreement between FivePrime or any affiliate and the participant shall supersede the foregoing definition with respect to stock awards subject to such agreement (it being understood, however, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply).

6.5 " Change in Control Severance Period " means the period of 12 months commencing on the Termination Date.

6.6 " Change in Control Termination " means an " Involuntary Termination Without Cause " or " Resignation for Good Reason, " either of which occurs on, or within three (3) months prior to, or within 12 months following, the effective date of a Change in Control, provided that any such termination is a "separation from service" within the meaning of Treasury Regulation Section 1.409A-1(h). Death and disability shall not be deemed Change in Control Terminations.

6.7 " COBRA " means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

6.8 " Code " means the Internal Revenue Code of 1986, as amended.

6.9 " Company " means Five Prime Therapeutics, Inc. or, following a Change in Control, the surviving entity resulting from such transaction, or any subsequent surviving entity resulting from any subsequent Change in Control.

6.10 " Covered Termination " means an " Involuntary Termination Without Cause ", provided that any such termination is a "separation from service" within the meaning of Treasury Regulation Section 1.409A-1(h). Death, disability, and termination of employment by Executive, shall not be deemed Covered Terminations.

6.11 " Covered Termination Severance Period " means the period of six months commencing on the Termination Date.

6.12 " Involuntary Termination Without Cause " means Executive's dismissal or discharge by FivePrime for reasons other than Cause and other than as a result of death or disability.

6.13 " Pro-Rata Bonus " means 1/12 th of the greater of (i) the average annual bonus paid to Executive for the three years preceding the date of a Change in Control Termination or Covered Termination, as applicable, (or such lesser number of years during which Executive has been employed by FivePrime), or (ii) annual target cash

bonus, as in effect immediately prior to a Change in Control Termination or Covered Termination, as applicable.

6.14 " Resignation for Good Reason " means Executive's resignation from all employee positions Executive then-holds with FivePrime within 60 days following any of the following events taken without Executive's consent, provided Executive has given FivePrime written notice of such event within 30 days after the first occurrence of such event and FivePrime has not cured such event within 30 days thereafter:

(a) A decrease in Executive's total target cash compensation (base and bonus) of more than 10% (i.e., a material reduction in Executive's base compensation and a material breach by FivePrime of Executive's employment terms with FivePrime), other than in connection with a comparable decrease in compensation for all comparable executives of FivePrime;

(b) Executive's duties or responsibilities are materially diminished (not simply a change in title or reporting relationships); Executive shall not be deemed to have a " Resignation for Good Reason " if FivePrime survives as a separate legal entity or business unit following the Change in Control and Executive holds materially the same position in such legal entity or business unit as Executive held before the Change in Control;

(c) An increase in Executive's round-trip driving distance of more than 50 miles from Executive's principal personal residence to the principal office or business location at which Executive is required to perform services (except for required business travel to the extent consistent with Executive's prior business travel obligations); or

(d) The failure of FivePrime to obtain a satisfactory agreement from any successor to materially assume and materially agree to perform under the terms of this Agreement.

6.15 " Termination Date " means the effective date of the Change in Control Termination or Covered Termination, as applicable.

ARTICLE 7

General Provisions

7.1 Employment Status. This Agreement does not constitute a contract of employment or impose upon Executive any obligation to remain as an employee, or impose on FivePrime any obligation (i) to retain Executive as an employee, (ii) to change the status of Executive as an at-will employee or (iii) to change FivePrime's policies regarding termination of employment.

7.2 Notices. Any notices provided hereunder must be in writing, and such notices or any other written communication shall be deemed effective upon the earlier of personal delivery (including personal delivery by facsimile) or the third day after mailing by first class mail, to FivePrime at its primary office location and to Executive at

Executive's address as listed in FivePrime's payroll records. Any payments made by FivePrime to Executive under the terms of this Agreement shall be deliver ed to Executive either in person or at the address as listed in FivePrime's payroll records.

7.3 Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.4 Waiver. If either party should waive any breach of any provisions of this Agreement, he, she or it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

7.5 Arbitration. Unless otherwise prohibited by law or specified below, all disputes, claims and causes of action, in law or equity, arising from or relating to this Agreement or its enforcement, performance, breach, or interpretation shall be resolved solely and exclusively by final and binding arbitration held in the San Francisco Bay Area through Judicial Arbitration & Mediation Services/Endispute (" JAMS ") under the then existing JAMS employment law arbitration rules. However, nothing in this Section 7.5 is intended to prevent either party from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. Each party in any such arbitration shall be responsible for its own attorneys' fees, costs and necessary disbursement; provided , however , that in the event one party refuses to arbitrate and the other party seeks to compel arbitration by court order, if such other party prevails, it shall be entitled to recover reasonable attorneys' fees, costs and necessary disbursements. Pursuant to California Civil Code Section 1717, each party warrants that it was represented by counsel in the negotiation and execution of this Agreement, including the attorneys' fees provision herein.

7.6 Complete Agreement. This Agreement, including **Exhibit A** , **Exhibit B** and **Exhibit C** , constitutes the entire agreement between Executive and FivePrime and is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter, wholly superseding all written and oral agreements with respect to payments and benefits to Executive in the event of employment termination. It is entered into without reliance on any promise or representation other than those expressly contained herein.

7.7 Amendment or Termination of Agreement; Continuation of Agreement. This Agreement may be changed or terminated only upon the mutual written consent of FivePrime and Executive. The written consent of FivePrime to a change or termination of this Agreement must be signed by an executive officer of FivePrime (other than Executive) after such change or termination has been approved by the Board. Unless so terminated, this Agreement shall continue in effect for as long as Executive continues to be employed by FivePrime or by any surviving entity following

any Change in Control. In other words, if, following a Change in Control, Executive continues to be employed by the surviving entity without a Change in Control Termination and the surviving entity then undergoes a Change in Control, followi ng which Executive is terminated by the subsequent surviving entity in a Change in Control Termination, then Executive shall receive the benefits described in Article 2 hereof.

7.8 Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, but all of which taken together will constitute one and the same Agreement.

7.9 Headings. The headings of the Articles and Sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.10 Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by Executive, and FivePrime, and any surviving entity resulting from a Change in Control and upon any other person who is a successor by merger, acquisition, consolidation or otherwise to the business formerly carried on by FivePrime, and their respective successors, assigns, heirs, executors and administrators, without regard to whether or not such person actively assumes any rights or duties hereunder; provided , however , that Executive may not assign any duties hereunder and may not assign any rights hereunder without the written consent of FivePrime, which consent shall not be withheld unreasonably.

7.11 ERISA. This Agreement is intended to constitute a severance agreement subject to the Employee Retirement Income Security Act of 1974, as amended (" ERISA ").

7.12 Choice of Law. To the extent not preempted by ERISA, all questions concerning the construction, validity and interpretation of this Agreement will be governed by the law of the State of California, without regard to such state's conflict of laws rules.

7.13 Construction of Agreement. In the event of a conflict between the text of this Agreement and any summary, description or other information regarding this Agreement, the text of this Agreement shall control.

7.14 Circular 230 Disclaimer. The following disclaimer is provided in accordance with the Internal Revenue Service's Circular 230 (21 C.F.R. Part 10). Any tax advice contained in this Agreement is intended to be preliminary, for discussion purposes only, and not final. Any such advice is not intended to be used for marketing, promoting or recommending any transaction or for the use of any person in connection with the preparation of any tax return. Accordingly, this advice is not intended or written to be used, and it cannot be used, by any person for the purpose of avoiding tax penalties that may be imposed on such person.

IN WITNESS WHEREOF **,** the parties have executed this Agreement on the Effective Date.

Five Prime Therapeutics, Inc.

By: /s/ Lewis T. Williams
Lewis T. Williams
President and Chief Executive Officer

/s/ Robert Sikorski
Robert Sikorski
Vice President, Global Clinical Development

Exhibit A: Release (Individual Termination – Age 40 or Older)
Exhibit B: Release (Individual and Group Termination – Under Age 40)
Exhibit C: Release (Group Termination – Age 40 or Older)

Exhibit A

Release
(Individual Termination – Age 40 or Older)

Certain capitalized terms used in this Release are defined in the Executive Severance Benefits Agreement between me and Five Prime Therapeutics, Inc. (the " Agreement ") of which this Release is a part.

I hereby confirm my obligations under the Confidential Information and Innovation Assignment Agreement between FivePrime and me (or other comparable agreement that I have signed, if any).

I acknowledge that I have read and understand Section 1542 of the California Civil Code which reads as follows: **"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."** I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims provided herein.

Except as otherwise set forth in this Release, I hereby release, acquit and forever discharge FivePrime, its parents and subsidiaries, and their officers, directors, agents, servants, employees, stockholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with FivePrime), arising out of or in any way related to agreements, events, acts or conduct at any time prior to the date I execute this Release, including all such claims and demands directly or indirectly arising out of or in any way connected with my employment with FivePrime or the termination of that employment, including claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in FivePrime, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including the federal Civil Rights Act of 1964, as amended; the federal Age Discrimination in Employment Act of 1967, as amended (" ADEA "); the federal Employee Retirement Income Security Act of 1974, as amended; the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination; fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; provided , however , that nothing in this paragraph shall be construed in any way to release FivePrime from its obligation to indemnify me pursuant to FivePrime's indemnification obligation pursuant to written agreement or applicable law.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under ADEA. I also acknowledge that the consideration given under t he Agreement for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing, as required by the ADEA, that: (A) my waiver and release do not apply to any rights or claims that may arise on or after the date I execute this Release; (B) I have the right to consult with an attorney prior to executing this Release; (C) I have 21 days to consider this Release (although I may choose to voluntarily execute this Release earlier); (D) I have seven days following my execution of this Release to revoke the Release by providing a written notice of revocation to FivePrime's Chief Executive Officer; and (E) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after I execute this Release (provided that I do not revoke it).

I hereby represent that I have been paid all compensation owed and for all hours worked, I have received all the leave and leave benefits and protections for which I am eligible, pursuant to the federal Family and Medical Leave Act, the California Family Rights Act, any Company policy or applicable law, and I have not suffered any on-the-job injury or illness for which I have not already filed a workers' compensation claim.

Executive:

_____

Signature

_____

Printed Name

Date: _____

Exhibit B

Release
(Individual and Group Termination – Under Age 40)

Certain capitalized terms used in this Release are defined in the Executive Severance Benefits Agreement between me and Five Prime Therapeutics, Inc. (the " Agreement ") of which this Release is a part.

I hereby confirm my obligations under the Confidential Information and Innovation Assignment Agreement between FivePrime and me (or other comparable agreement that I have signed, if any).

I acknowledge that I have read and understand Section 1542 of the California Civil Code which reads as follows: **"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."** I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims provided herein.

Except as otherwise set forth in this Release, I hereby release, acquit and forever discharge FivePrime, its parents and subsidiaries, and their officers, directors, agents, servants, employees, stockholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with FivePrime), arising out of or in any way related to agreements, events, acts or conduct at any time prior to the date I execute this Release, including all such claims and demands directly or indirectly arising out of or in any way connected with my employment with FivePrime or the termination of that employment, including claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in FivePrime, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including the federal Civil Rights Act of 1964, as amended; the federal Employee Retirement Income Security Act of 1974, as amended; the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination; fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; provided , however , that nothing in this paragraph shall be construed in any way to release FivePrime from its obligation to indemnify me pursuant to FivePrime's indemnification obligation pursuant to written agreement or applicable law.

I acknowledge that the consideration given under the Agreement for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing that: (A) my waiver and release do not apply to any rights or claims that ma y arise on or after the date I execute this Release; (B) I have the right to consult with an attorney prior to executing this Release; and (C) I have 21 days to consider this Release (although I may choose to voluntarily execute this Release earlier).

I hereby represent that I have been paid all compensation owed and for all hours worked, I have received all the leave and leave benefits and protections for which I am eligible, pursuant to the federal Family and Medical Leave Act, the California Family Rights Act, any Company policy or applicable law, and I have not suffered any on-the-job injury or illness for which I have not already filed a workers' compensation claim.

Executive:

_____

Signature

_____

Printed Name

Date: _____

Exhibit C

Release
(Group Termination – Age 40 or Older)

Certain capitalized terms used in this Release are defined in the Executive Severance Benefits Agreement between me and Five Prime Therapeutics, Inc. (the " Agreement ") of which this Release is a part.

I hereby confirm my obligations under the Confidential Information and Innovation Assignment Agreement between FivePrime and me (or other comparable agreement that I have signed, if any).

I acknowledge that I have read and understand Section 1542 of the California Civil Code which reads as follows: **"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."** I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims provided herein.

Except as otherwise set forth in this Release, I hereby release, acquit and forever discharge FivePrime, its parents and subsidiaries, and their officers, directors, agents, servants, employees, stockholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with FivePrime), arising out of or in any way related to agreements, events, acts or conduct at any time prior to the date I execute this Release, including all such claims and demands directly or indirectly arising out of or in any way connected with my employment with FivePrime or the termination of that employment, including claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in FivePrime, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including the federal Civil Rights Act of 1964, as amended; the federal Age Discrimination in Employment Act of 1967, as amended (" ADEA "); the federal Employee Retirement Income Security Act of 1974, as amended; the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination; fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; provided , however , that nothing in this paragraph shall be construed in any way to release FivePrime from its obligation to indemnify me pursuant to FivePrime's indemnification obligation pursuant to written agreement or applicable law.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under the ADEA. I also acknowledge that the consideration given under the Agreement for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing, as required by the ADEA, that: (A) my waiver and release do not apply to any rights or claims that may arise on or after the date I execute this Release; (B) I have the right to consult with an attorney prior to executing this Release; (C) I have 45 days to consider this Release (although I may choose to voluntarily ex ecute this Release earlier); (D) I have seven days following my execution of this Release to revoke the Release by providing a written notice of revocation to FivePrime's Chief Executive Officer; (E) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after I execute this Release; and (F) I have received with this Release the required written disclosure for a "group termination" under the ADEA, including a detailed list of the job t itles and ages of all employees who were terminated in this group termination and the ages of all employees of FivePrime in the same job classification or organizational unit who were not terminated.

I hereby represent that I have been paid all compensation owed and for all hours worked, I have received all the leave and leave benefits and protections for which I am eligible, pursuant to the federal Family and Medical Leave Act, the California Family Rights Act, any Company policy or applicable law, and I have not suffered any on-the-job injury or illness for which I have not already filed a workers' compensation claim.

Executive:

_____

Signature

_____

Printed Name

Date: _____

CONFIDENTIAL

Exhibit 10.24

Amendment No. 1 to the Executive Severance Benefits Agreement

This Amendment No. 1 to the Executive Severance Benefits Agreement (this " Amendment "), effective January 21, 2016 (the " Amendment Effective Date "), is made and entered into by and between Five Prime Therapeutics, Inc., a Delaware corporation (" FivePrime "), and Robert Sikorski , an individual (" Executive ").

Background

A. FivePrime and Executive are parties to the Executive Severance Benefits Agreement, dated September 17, 2014 (the " Agreement ").

B. FivePrime and Executive desire to amend the Agreement, in accordance with Section 7.7 of the Agreement.

NOW, THEREFORE , FivePrime and Executive agree as follows:

1. Amendment of the Agreement. FivePrime and Executive agree to amend the terms of the Agreement as provided below, effective as of the Amendment Effective Date. Where the Agreement is not explicitly amended, the terms of the Agreement will remain in full force and effect. Capitalized terms used in this Amendment that are not otherwise defined herein shall have the same meanings as such terms are given in the Agreement.

2. Title of Executive. Section 1.1 of the Agreement is hereby amended and restated in its entirety as set forth below:

> "The Company desires to employ Executive, or to continue Executive's employment, in the position of Senior Vice President, Global Clinical Development, and Executive wishes to be employed, or continue to be employed, by the Company in such position."

3. Change in Control Severance Period. Section 6.5 of the Agreement is hereby amended and restated in its entirety as set forth below:

> "" ***Change in Control Severance Period*** " means the period of eighteen (18) months commencing on the Termination Date."

4. Covered Termination Severance Period. Section 6.11 of the Agreement is hereby amended and restated in its entirety as set forth below:

> "" ***Covered Termination Severance Period*** " means the period of nine (9) months commencing on the Termination Date."

5. Miscellaneous.

5.1 Full Force and Effect. This Amendment amends the terms of the Agreement and is deemed incorporated into the Agreement. The provisions of the Agreement, as amended by this Amendment, remain in full force and effect.

5.2 Entire Agreement. The Agreement, as amended by this Amendment, sets forth the entire understanding of FivePrime and Executive relating to the subject matter thereof and supersedes all prior agreements and understandings between FivePrime and Executive relating to the subject matter thereof.

IN WITNESS WHEREOF , FivePrime and Executive have executed this Amendment as of the Amendment Effective Date.

Five Prime Therapeutics, Inc.

/s/ Lewis T. Williams
Lewis T. Williams
President and Chief Executive Officer

/s/ Robert Sikorski
Robert Sikorski

Executive Severance Benefits Agreement

This Executive Severance Benefits Agreement (this " ***Agreement*** "), effective as of February 1, 2016 (the " ***Effective Date*** "), between Kevin Paul Baker, Ph.D. (" ***Executive*** ") and Five Prime Therapeutics, Inc. (" ***FivePrime*** "). This Agreement is intended to provide Executive with certain compensation and benefits in the event that Executive is subject to certain qualifying terminations of employment. Certain capitalized terms used in this Agreement are defined in Article 6.

FivePrime and Executive hereby agree as follows:

ARTICLE 1

Scope of and Consideration for this Agreement

1.1 FivePrime desires to employ Executive in the position of Senior Vice President, Developmental Sciences, and Executive wishes to be employed by FivePrime in such position.

1.2 FivePrime and Executive wish to set forth the compensation and benefits that Executive shall be entitled to receive upon a Change in Control Termination or a Covered Termination.

1.3 The duties and obligations of FivePrime to Executive under this Agreement shall be in consideration for Executive's employment with FivePrime (and if Executive is a continuing employee, his or her past services to FivePrime), and, with respect to the benefits described in Article 2 and Article 3, Executive's compliance with the limitations and conditions on benefits as described in Article 4, including the execution of an effective Release, return of Company property and continued compliance with the Restrictive Covenants.

1.4 This Agreement shall supersede any other policy, plan, program or arrangement, including any contract between Executive and any entity, relating to severance benefits payable by FivePrime to Executive in connection with a Change in Control Termination or Covered Termination.

ARTICLE 2

Change in Control Severance Benefits

2.1 Severance Benefits. Upon a Change in Control Termination, and subject to the limitations and conditions set forth in this Agreement, Executive shall be eligible to receive the benefits set forth in this Article 2.

2.2 Salary Continuance. Executive shall receive, as severance, an amount equal to Executive's Base Salary and Pro-Rata Bonus for that number of months in the Change in Control Severance Period, payable over such number of months immediately following the Termination Date in accordance with FivePrime 's payroll schedule then in effect. Except as set forth in Article 4, the payments provided for in this Section 2.2 shall commence with the first regularly scheduled payroll pay date following the Termination Date.

2.3 Health Continuation Coverage .

(a) Provided that Executive is eligible and has made the necessary elections for continuation coverage pursuant to COBRA under a health, dental, or vision plan sponsored by FivePrime, FivePrime shall pay the applicable premiums (inclusive of premiums for Executive's dependents for such health, dental, or vision plan coverage as in effect immediately prior to the date of the Change in Control Termination) for such continued health, dental, or vision plan coverage following the date of the Change in Control Termination for up to the number of months equal to the Change in Control Severance Period (but in no event after such time as Executive is eligible for coverage under a health, dental or vision insurance plan of a subsequent employer or as Executive and Executive's dependents are no longer eligible for COBRA coverage). Such coverage shall be counted as coverage pursuant to COBRA. FivePrime shall have no obligation in respect of any premium payments (or any other payments in respect of health, dental, or vision coverage from FivePrime) following the effective date of the Executive's coverage by a health, dental, or vision insurance plan of a subsequent employer. Executive shall be required to notify FivePrime immediately if Executive becomes covered by a health, dental, or vision insurance plan of a subsequent employer. If Executive and Executive's dependents continue coverage pursuant to COBRA following the conclusion of the Change in Control Severance Period, Executive will be responsible for the entire payment of such premiums required under COBRA for the duration of the COBRA period.

(b) For purposes of this Section 2.3, (i) references to COBRA shall be deemed to refer also to analogous provisions of state law, and (ii) any applicable insurance premiums that are paid by FivePrime shall not include any amounts payable by Executive under a Code Section 125 health care reimbursement plan, which amounts, if any, are the sole responsibility of Executive.

2.4 Stock Awards. Upon a Change in Control Termination, (i) the vesting and exercisability of all outstanding options to purchase common stock of FivePrime (or stock appreciation rights or other rights with respect to stock of FivePrime issued pursuant to any equity incentive plan of FivePrime) that are held by Executive on the Termination Date shall be accelerated in full, and (ii) any reacquisition or repurchase rights held by FivePrime with respect to common stock issued or issuable (or with respect to other rights with respect to common stock of FivePrime issued or issuable) pursuant to any other stock award granted to Executive pursuant to any equity incentive plan of FivePrime (other than the Restricted Stock Award for 75,000 shares of common stock granted to Executive in connection with the start of his employment as Senior Vice President) shall lapse.

ARTICLE 3

COVERED TERMINATION SEVERANCE BENEFITS

3.1 Severance Benefits. Upon a Covered Termination, and subject to the limitations and conditions set forth in this Agreement, Executive shall be eligible to receive the benefits set forth in this Article 3.

3.2 Salary Continuance. Executive shall receive, as severance, an amount equal to Executive's Base Salary and Pro-Rata Bonus for that number of months in the Covered Termination Severance Period, payable over such number of months immediately following the Termination Date in accordance with FivePrime's payroll schedule then in effect. Except as set forth in Article 4, the payments provided for in this Section 3.2 shall commence with the first regularly scheduled payroll pay date following the Termination Date.

3.3 Health Continuation Coverage .

(a) Provided that Executive is eligible and has made the necessary elections for continuation coverage pursuant to COBRA under a health, dental, or vision plan sponsored by FivePrime, FivePrime shall pay for the applicable premiums (inclusive of premiums for Executive's dependents for such health, dental, or vision plan coverage as in effect immediately prior to the date of the Covered Termination) for such continued health, dental, or vision plan coverage following the date of the Covered Termination for up to the number of months equal to the Covered Termination Severance Period (but in no event after such time as Executive is eligible for coverage under a health, dental or vision insurance plan of a subsequent employer or as Executive and Executive's dependents are no longer eligible for COBRA coverage). Such coverage shall be counted as coverage pursuant to COBRA. FivePrime shall have no obligation in respect of any premium payments (or any other payments in respect of health, dental, or vision coverage from FivePrime) following the effective date of the Executive's coverage by a health, dental, or vision insurance plan of a subsequent employer. Executive shall be required to notify FivePrime immediately if Executive becomes covered by a health, dental, or vision insurance plan of a subsequent employer. If Executive and Executive's dependents continue coverage pursuant to COBRA following the conclusion of the Covered Termination Severance Period, Executive will be responsible for the entire payment of such premiums required under COBRA for the duration of the COBRA period.

(b) For purposes of this Section 3.3, (i) references to COBRA shall be deemed to refer also to analogous provisions of state law, and (ii) any applicable insurance premiums that are paid by FivePrime shall not include any amounts payable by Executive under a Code Section 125 health care reimbursement plan, which amounts, if any, are the sole responsibility of Executive.

3.4 Stock Awards. Upon a Covered Termination, (i) the vesting and exercisability of all unvested shares subject to outstanding options to purchase common stock of FivePrime (or

stock appreciation rights or other rights with respect to stock of FivePrime issued pursuant to any equity incentive plan of FivePrime) that are held by Executive on the Termination Date shall be accelerated by fifty percent (50%), and (ii) any reacquisition or repurchase rights held by FivePrime with respect to common stock of FivePrime issued or issuable (or with respect to other rights with respect to stock of FivePrime issued or issuable) pursuant to any other stock award granted to Executive pursuant to any equity incentive plan of FivePrime (other than the Restricted Stock Award for 75,000 shares of common stock granted to Executive in connection with the start of his employment as Senior Vice President) shall lapse with respect to fifty percent (50%) of those shares then unvested as of the Termination Date.

ARTICLE 4

LIMITATIONS AND CONDITIONS ON BENEFITS

4.1 Rights Conditioned on Compliance. Executive's rights to receive all severance benefits described in Article 2 and Article 3 shall be conditioned upon and subject to Executive's compliance with the limitations and conditions on benefits as described in this Article 4.

4.2 Continuation of Service Until Date of Termination. Executive shall continue to provide service to FivePrime in good faith until the Termination Date, unless such performance is otherwise excused in writing by FivePrime.

4.3 Release Prior to Payment of Benefits. Upon the occurrence of a Change in Control Termination or a Covered Termination, as applicable, and prior to the provision or payment of any benefits under this Agreement on account of such Change in Control Termination or Covered Termination, as applicable, Executive must execute a general waiver and release in substantially the form attached hereto and incorporated herein as **Exhibit A** , or **Exhibit B** , as appropriate (each a " ***Release*** "), and such release must become effective in accordance with its terms, but in no event later than 60 days following the Termination Date. No amount shall be paid prior to such date . Instead, on the 60 th day following the Termination Date, FivePrime will pay Executive the severance amount that Executive would otherwise have received on or prior to such date but for the delay in payment related to the effectiveness of the Release, with the balance of the severance amount being paid as originally scheduled . FivePrime may modify the Release in its discretion to comply with changes in applicable law at any time prior to Executive's execution of such Release. Such Release shall specifically relate to all of Executive's rights and claims in existence at the time of such execution and shall confirm Executive's obligations under Executive's Proprietary Information and Inventions Agreement (or any successor agreement thereto) and any similar obligations under applicable law. It is understood that, as specified in the applicable Release, Executive has a certain number of calendar days to consider whether to execute such Release. If Executive does not execute such Release within the applicable period, no benefits shall be provided or payable under, and Executive shall have no further rights, title or interests in or to any severance benefits or payments pursuant to, this Agreement. It is further understood that in connection with a Change in Control Termination or a Covered Termination, as applicable, Executive may revoke the

applicable Release within seven calendar days after its execution by Executive. If Executive revokes such Release within s uch subsequent seven- day period, no benefits shall be provided or payable under this Agreement pursuant to such Change in Control Termination or Covered Termination, as applicable.

4.4 Return of Company Property. Not later than the Termination Date, Executive shall return to FivePrime all documents (and all copies thereof) and other property belonging to FivePrime that Executive has in his or her possession or control. The documents and property to be returned include, but are not limited to, all files, correspondence, email, memoranda, notes, notebooks, records, plans, forecasts, reports, studies, analyses, compilations of data, proposals, agreements, financial information, research and development information, marketing information, operational and personnel information, databases, computer-recorded information, tangible property and equipment (including computers, facsimile machines, mobile telephones, and servers), credit cards, entry cards, identification badges and keys; and any materials of any kind that contain or embody any proprietary or confidential information of FivePrime (and all reproductions thereof in whole or in part). Executive agrees to make a diligent search to locate any such documents, property and information. If Executive has used any personally owned computer, server, or e-mail system to receive, store, review, prepare or transmit any Company confidential or proprietary data, materials or information, then within 10 business days after the Termination Date, Executive shall provide FivePrime with a computer-useable copy of all such information and then permanently delete and expunge such confidential or proprietary information from those systems. Executive agrees to provide FivePrime access to Executive's system as requested to verify that the necessary copying or deletion is done.

4.5 Cooperation and Continued Compliance with Restrictive Covenants.

(a) From and after the Termination Date, Executive shall cooperate fully with FivePrime in connection with its actual or contemplated defense, prosecution, or investigation of any existing or future litigation, arbitrations, mediations, claims, demands, audits, government or regulatory inquiries, or other matters arising from events, acts, or failures to act that occurred during the time period in which Executive was employed by FivePrime (including any period of employment with an entity acquired by FivePrime). Such cooperation includes being available upon reasonable notice, without subpoena, to provide accurate and complete advice, assistance and information to FivePrime, including offering and explaining evidence, providing truthful and accurate sworn statements, and participating in discovery and trial preparation and testimony. Executive also agrees to promptly send FivePrime copies of all correspondence (for example subpoenas) received by Executive in connection with any such legal proceedings, unless Executive is expressly prohibited by law from so doing. FivePrime will reimburse Executive for reasonable out-of-pocket expenses incurred in connection with any such cooperation (excluding foregone wages, salary, or other compensation) within 30 days of Executive's timely presentation of appropriate documentation thereof, in accordance with FivePrime's standard reimbursement policies and procedures, and will make reasonable efforts to accommodate Executive's scheduling needs. To the extent that any taxable reimbursements of expenses are provided hereunder, they shall be made or provided in accordance with Section 409A of the

Code, including the following provisions: (i) the amount of any such expense reimbursement provided during Executive's taxable year shall not affect any expenses eligible for reimbursement in any other taxable year; (ii) the reimbursement of the eligible expense shall be made no later than the last day of Executive's taxable year that immediately follows the taxable year in which the expense was incurred; and (iii) the right to any reimbursement shall not be subject to liquidation or exchange for another benefit or payment .

(b) From and after the Termination Date, Executive shall continue to abide by all of the terms and provisions of the Confidential Information and Innovation Assignment Agreement between FivePrime and Executive (and any other comparable agreement signed by Executive), in accordance with its terms.

(c) Executive acknowledges and agrees that Executive's obligations under this Section 4.5 are an essential part of the consideration Executive is providing hereunder in exchange for which and in reliance upon which FivePrime has agreed to provide the payments and benefits under this Agreement. Executive further acknowledges and agrees that Executive's violation of Section 4.5 inevitably would involve use or disclosure of FivePrime's proprietary and confidential information. Accordingly, Executive agrees that Executive will forfeit, effective as of the date of any breach, any right, entitlement, claim or interest in or to any unpaid portion of the severance payments or benefits provided in Article 2 or Article 3.

4.6 Parachute Payments.

(a) Parachute Payment Limitation . If any payment or benefit (including payments and benefits pursuant to this Agreement) Executive would receive in connection with a Change in Control from FivePrime or otherwise (" ***Payment*** ") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the " ***Excise Tax*** "), then FivePrime shall cause to be determined, before any amounts of the Payment are paid to Executive, which of the following two alternative forms of payment shall be paid to Executive: (i) payment in full of the entire amount of the Payment (a " ***Full Payment*** "), or (ii) payment of only a part of the Payment so that Executive receives the largest payment possible without the imposition of the Excise Tax (a " ***Reduced Payment*** "). A Full Payment shall be made in the event that the quotient obtained by dividing (i) the excess of (a) the Full Payment, over (b) the Reduced Payment, by (ii) the Reduced Payment, is greater than ten percent (10%). A Reduced Payment shall be made in the event that the quotient obtained by dividing (i) the excess of (a) the Full Payment, over (b) the Reduced Payment, by (ii) the Reduced Payment, is less than or equal to ten percent (10%). If a Reduced Payment is made, (i) the Payment shall be paid only to the extent permitted under the Reduced Payment alternative, and Executive shall have no rights to any additional payments or benefits constituting the Payment, and (ii) reduction in payments or benefits shall occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive. In the event that

acceleration of compensation from Executive's equity awards is to be reduced, such acceleration of vesting shall be canceled in the reverse order of the date of grant.

(b) The independent registered public accounting firm engaged by FivePrime for general audit purposes as of the day prior to the effective date of the Change in Control shall make all determinations required to be made under this Section 4.6. If the independent registered public accounting firm so engaged by FivePrime is serving as accountant or auditor for the individual, entity or group effecting the Change in Control, FivePrime shall appoint a nationally recognized independent registered public accounting firm to make the determinations required hereunder. FivePrime shall bear all expenses with respect to the determinations by such independent registered public accounting firm required to be made hereunder.

(c) The independent registered public accounting firm engaged to make the determinations hereunder shall provide its calculations, together with detailed supporting documentation, to FivePrime and Executive within 15 calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by FivePrime or Executive) or such other time as requested by FivePrime or Executive. If the independent registered public accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it shall furnish FivePrime and Executive with an opinion reasonably acceptable to Executive that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder shall be final, binding and conclusive upon FivePrime and Executive.

4.7 Certain Reductions and Offsets. To the extent that any federal, state or local laws, including the Worker Adjustment and Retraining Notification Act (the " ***WARN Act*** ") or any other so-called "plant closing" laws, require FivePrime to give advance notice or make a payment of any kind to Executive because of Executive's involuntary termination due to a layoff, reduction in force, plant or facility closing, sale of business, change in control, or any other similar event or reason, the benefits payable under this Agreement shall be correspondingly reduced. The benefits provided under this Agreement are intended to satisfy any and all statutory obligations that may arise out of Executive's involuntary termination of employment for the foregoing reasons, and the parties shall construe and enforce the terms of this Agreement accordingly.

4.8 Mitigation. Except as otherwise specifically provided herein, Executive shall not be required to mitigate damages or the amount of any payment provided under this Agreement by seeking other employment or otherwise, nor shall the amount of any payment provided for under this Agreement be reduced by any compensation earned by Executive as a result of employment by another employer or by any retirement benefits received by Executive after the date of a Change in Control Termination or Covered Termination (except as expressly provided in Sections 2.3 and 3.3 above).

4.9 Indebtedness of Executive . If Executive is indebted to FivePrime on the effective date of a Change in Control Termination or Covered Termination, FivePrime reserves

the right to offset any severance payments and benefits under this Agreement by the amount of such indebtedness.

4.10 Application of Section 409A . It is intended that each installment of the payments provided for in this Agreement is a separate "payment" for purposes of Treasury Regulation Section 1.409A-2(b)(2)(i). For the avoidance of doubt, it is intended that the payments under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Code Section 409A provided under Treasury Regulation Sections 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9). However, if FivePrime (or, if applicable, the successor entity thereto) determines that the severance payments provided under this agreement (the " ***Agreement Payments*** ") constitute "deferred compensation" under Section 409A and Executive is, on the termination of service, a "specified employee" of FivePrime or any successor entity thereto, as such term is defined in Section 409A(a)(2)(B)(i) of the Code, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Code Section 409A, the timing of the Agreement Payments shall be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's separation from service or (ii) the date of Executive's death (such earlier date, the " ***Delayed Initial Payment Date*** "), FivePrime (or the successor entity thereto, as applicable) shall (A) pay Executive a lump sum amount equal to the sum of the Agreement Payments that she would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Agreement Payments had not been so delayed pursuant to this paragraph and (B) commence paying the balance of the Agreement Payments in accordance with the applicable payment schedules set forth in this agreement.

4.11 Tax Withholding . All payments under this Agreement shall be subject to applicable withholding for federal, state and local income and employment taxes.

ARTICLE 5

Other Rights and Benefits

Nothing in this Agreement shall prevent or limit Executive's continuing or future participation in any benefit, bonus, incentive or other plans, programs, policies or practices provided by FivePrime and for which Executive may otherwise qualify, nor shall anything herein limit or otherwise affect such rights as Executive may have under other agreements with FivePrime except as provided in Section 1.4 above. Except as otherwise expressly provided herein, amounts that are vested benefits or that Executive is otherwise entitled to receive under any plan, policy, practice or program of FivePrime at or subsequent to the date of a Change in Control shall be payable in accordance with such plan, policy, practice or program.

ARTICLE 6

DEFINITIONS

Unless otherwise provided, for purposes of this Agreement, the following definitions shall apply:

6.1 " ***Base Salary*** " means 1/12 th of the greater of (i) Executive's annual base salary (excluding incentive pay, premium pay, commissions, overtime, bonuses, and other forms of variable compensation) as in effect immediately prior to a Change in Control Termination or a Covered Termination, as applicable, or (ii) in the case of a Change in Control Termination, Executive's annual base salary (excluding incentive pay, premium pay, commissions, overtime, bonuses, and other forms of variable compensation) as in effect immediately prior to a Change in Control.

6.2 " ***Board*** " means the Board of Directors of FivePrime.

6.3 " ***Cause*** " means Executive's: (i) dishonest statements or acts with respect to FivePrime, any subsidiary or any affiliate of FivePrime or any subsidiary; (ii) commission by or indictment for (A) a felony or (B) any misdemeanor (excluding minor traffic violations) involving moral turpitude, deceit, dishonesty or fraud ("indictment," for these purposes, meaning an indictment, probable cause hearing or any other procedure pursuant to which an initial determination of probable or reasonable cause with respect to such offense is made); (iii) gross negligence, willful misconduct or insubordination with respect to FivePrime, any subsidiary or any affiliate of FivePrime or any subsidiary; (iv) material breach of any of Executive's obligations under any agreement to which Executive and FivePrime or any subsidiary are a party; or (v) death or disability. With respect to item (iv), Executive will be given notice and a 30-day period in which to cure such breach, only to the extent such breach can be reasonably expected to be able to be cured within such period. Executive agrees that the breach of any non-solicitation or confidentiality obligation to FivePrime or any subsidiary shall not be curable to any extent.

6.4 " ***Change in Control*** " means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(a) Any natural person, entity or group within the meaning of Section 13(d) or 14(d) of the Securities Exchange Act of 1934 (" ***Exchange Act Person*** ") becomes the owner, directly or indirectly, of securities of FivePrime representing more than fifty percent (50%) of the combined voting power of FivePrime's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (i) on account of the acquisition of securities of FivePrime by any institutional investor, any affiliate thereof or any other Exchange Act Person that acquires FivePrime's securities in a transaction or series of related transactions that are primarily a private financing transaction for FivePrime or (ii) solely because the level of ownership held by any

Exchange Act Person (the " ***Subject Person*** ") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by FivePrime reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by FivePrime , and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(b) There is consummated a merger, consolidation or similar transaction involving (directly or indirectly) FivePrime if, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of FivePrime immediately prior thereto do not own, directly or indirectly, either (i) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving entity in such merger, consolidation or similar transaction or (ii) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving entity in such merger, consolidation or similar transaction;

(c) The stockholders of FivePrime approve or the Board approves a plan of complete dissolution or liquidation of FivePrime, or a complete dissolution or liquidation of FivePrime shall otherwise occur; or

(d) There is consummated a sale, lease, license or other disposition of all or substantially all of the consolidated assets of FivePrime and its subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of FivePrime and its subsidiaries to an entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are owned by stockholders of FivePrime in substantially the same proportion as their ownership of FivePrime immediately prior to such sale, lease, license or other disposition.

The term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of FivePrime. Notwithstanding the foregoing or any other provision of this Agreement, the definition of Change in Control (or any analogous term) in an individual written agreement between FivePrime or any affiliate and the participant shall supersede the foregoing definition with respect to stock awards subject to such agreement (it being understood, however, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply).

6.5 " ***Change in Control Severance Period*** " means the period of 18 months commencing on the Termination Date.

6.6 " ***Change in Control Termination*** " means an " ***Involuntary Termination Without Cause*** " or " ***Resignation for Good Reason*** , " either of which occurs on, or within three months prior to, or within 12 months following, the effective date of a Change in Control, provided that any such termination is a "separation from service" within the meaning of Treasury Regulation Section 1.409A-1(h). Death and disability shall not be deemed Change in Control Terminations.

6.7 " ***COBRA*** " means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

6.8 " ***Code*** " means the Internal Revenue Code of 1986, as amended.

6.9 " ***Company*** " means Five Prime Therapeutics, Inc. or, following a Change in Control, the surviving entity resulting from such transaction, or any subsequent surviving entity resulting from any subsequent Change in Control.

6.10 " ***Covered Termination*** " means an " ***Involuntary Termination Without Cause*** ", provided that any such termination is a "separation from service" within the meaning of Treasury Regulation Section 1.409A-1(h). Death, disability, and termination of employment by Executive, shall not be deemed Covered Terminations.

6.11 " ***Covered Termination Severance Period*** " means the period of nine months commencing on the Termination Date.

6.12 " ***Involuntary Termination Without Cause*** " means Executive's dismissal or discharge by FivePrime for reasons other than Cause and other than as a result of death or disability.

6.13 " ***Pro-Rata Bonus*** " means 1/12 th of the greater of (i) the average annual bonus paid to Executive for the three years preceding the date of a Change in Control Termination or Covered Termination, as applicable, (or such lesser number of years during which Executive has been employed by FivePrime), or (ii) annual target cash bonus, as in effect immediately prior to a Change in Control Termination or Covered Termination, as applicable.

6.14 " ***Resignation for Good Reason*** " means Executive's resignation from all employee positions Executive then-holds with FivePrime within 60 days following any of the following events taken without Executive's consent, provided Executive has given FivePrime written notice of such event within 30 days after the first occurrence of such event and FivePrime has not cured such event within 30 days thereafter:

(a) A decrease in Executive's total target cash compensation (base and bonus) of more than 10% (i.e., a material reduction in Executive's base compensation and a material breach by FivePrime of Executive's employment terms with FivePrime), other than in connection with a comparable decrease in compensation for all comparable executives of FivePrime;

(b) Executive's duties or responsibilities are materially diminished (not simply a change in title or reporting relationships); Executive shall not be deemed to have a " ***Resignation for Good Reason*** " if FivePrime survives as a separate legal entity or business unit following the Change in Control and Executive holds materially the same position in such legal entity or business unit as Executive held before the Change in Control;

(c) An increase in Executive's round-trip driving distance of more than 50 miles from Executive's principal personal residence to the principal office or business location at which Executive is required to perform services (except for required business travel to the extent consistent with Executive's prior business travel obligations); or

(d) The failure of FivePrime to obtain a satisfactory agreement from any successor to materially assume and materially agree to perform under the terms of this Agreement.

6.15 " ***Termination Date*** " means the effective date of the Change in Control Termination or Covered Termination, as applicable.

ARTICLE 7

General Provisions

7.1 Employment Status. This Agreement does not constitute a contract of employment or impose upon Executive any obligation to remain as an employee, or impose on FivePrime any obligation (i) to retain Executive as an employee, (ii) to change the status of Executive as an at-will employee or (iii) to change FivePrime's policies regarding termination of employment.

7.2 Notices. Any notices provided hereunder must be in writing, and such notices or any other written communication shall be deemed effective upon the earlier of personal delivery (including personal delivery by facsimile) or the third day after mailing by first class mail, to FivePrime at its primary office location and to Executive at Executive's address as listed in FivePrime's payroll records. Any payments made by FivePrime to Executive under the terms of this Agreement shall be delivered to Executive either in person or at the address as listed in FivePrime's payroll records.

7.3 Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.4 Waiver. If either party should waive any breach of any provisions of this Agreement, he, she or it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

7.5 Arbitration. Unless otherwise prohibited by law or specified below, all disputes, claims and causes of action, in law or equity, arising from or relating to this Agreement or its enforcement, performance, breach, or interpretation shall be resolved solely and exclusively by final and binding arbitration held in the San Francisco Bay Area through Judicial Arbitration & Mediation Services/Endispute (" ***JAMS*** ") under the then existing JAMS employment law arbitration rules. However, nothing in this Section 7.5 is intended to prevent either party from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. Each party in any such arbitration shall be responsible for its own attorneys' fees, costs and necessary disbursement; *provided, however,* that in the event one party refuses to arbitrate and the other party seeks to compel arbitration by court order, if such other party prevails, it shall be entitled to recover reasonable attorneys' fees, costs and necessary disbursements. Pursuant to California Civil Code Section 1717, each party warrants that it was represented by counsel in the negotiation and execution of this Agreement, including the attorneys' fees provision herein.

7.6 Complete Agreement. This Agreement, including **Exhibit A** and **Exhibit B** , constitutes the entire agreement between Executive and FivePrime and is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter, wholly superseding all written and oral agreements with respect to payments and benefits to Executive in the event of employment termination. It is entered into without reliance on any promise or representation other than those expressly contained herein.

7.7 Amendment or Termination of Agreement; Continuation of Agreement. This Agreement may be changed or terminated only upon the mutual written consent of FivePrime and Executive. The written consent of FivePrime to a change or termination of this Agreement must be signed by an executive officer of FivePrime (other than Executive) after such change or termination has been approved by the Board. Unless so terminated, this Agreement shall continue in effect for as long as Executive continues to be employed by FivePrime or by any surviving entity following any Change in Control. In other words, if, following a Change in Control, Executive continues to be employed by the surviving entity without a Change in Control Termination and the surviving entity then undergoes a Change in Control, following which Executive is terminated by the subsequent surviving entity in a Change in Control Termination, then Executive shall receive the benefits described in Article 2 hereof.

7.8 Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, but all of which taken together will constitute one and the same Agreement.

7.9 Headings. The headings of the Articles and Sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.10 Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by Executive, and FivePrime, and any surviving entity resulting from a Change in Control and upon any other person who is a successor by merger, acquisition, consolidation or otherwise to the business formerly carried on by FivePrime, and their respective successors, assigns, heirs, executors and administrators, without regard to whether or not such person actively assumes any rights or duties hereunder; *provided, however,* that Executive may not assign any duties hereunder and may not assign any rights hereunder without the written consent of FivePrime, which consent shall not be withheld unreasonably.

7.11 ERISA. This Agreement is intended to constitute a severance agreement subject to the Employee Retirement Income Security Act of 1974, as amended (" ***ERISA*** ").

7.12 Choice of Law. To the extent not preempted by ERISA, all questions concerning the construction, validity and interpretation of this Agreement will be governed by the law of the State of California, without regard to such state's conflict of laws rules.

7.13 Construction of Agreement. In the event of a conflict between the text of this Agreement and any summary, description or other information regarding this Agreement, the text of this Agreement shall control.

7.14 Circular 230 Disclaimer. **THE FOLLOWING DISCLAIMER IS PROVIDED IN ACCORDANCE WITH THE INTERNAL REVENUE SERVICE'S CIRCULAR 230 (21 C.F.R. PART 10). ANY TAX ADVICE CONTAINED IN THIS AGREEMENT IS INTENDED TO BE PRELIMINARY, FOR DISCUSSION PURPOSES ONLY, AND NOT FINAL. ANY SUCH ADVICE IS NOT INTENDED TO BE USED FOR MARKETING, PROMOTING OR RECOMMENDING ANY TRANSACTION OR FOR THE USE OF ANY PERSON IN CONNECTION WITH THE PREPARATION OF ANY TAX RETURN. ACCORDINGLY, THIS ADVICE IS NOT INTENDED OR WRITTEN TO BE USED, AND IT CANNOT BE USED, BY ANY PERSON FOR THE PURPOSE OF AVOIDING TAX PENALTIES THAT MAY BE IMPOSED ON SUCH PERSON.**

In Witness Whereof, the parties have executed this Agreement on the Effective Date.

Five Prime Therapeutics, Inc.

By: /s/ Lewis T. Williams
Lewis T. Williams
President and Chief Executive Officer

/s/ Kevin Paul Baker
Kevin Paul Baker, Ph.D.

Exhibit A: Release (Individual Termination – Age 40 or Older)
Exhibit B: Release (Group Termination – Age 40 or Older)

EXHIBIT A

RELEASE
(INDIVIDUAL TERMINATION – AGE 40 OR OLDER)

Certain capitalized terms used in this Release are defined in the Executive Change in Control Severance Benefits Agreement (the " ***Agreement*** ") which I have executed and of which this Release is a part.

I hereby confirm my obligations under FivePrime's Employee Confidentiality and Inventions Assignment Agreement (or other comparable agreement that I have signed, if any).

I acknowledge that I have read and understand Section 1542 of the California Civil Code which reads as follows: **"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."** I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims provided herein.

Except as otherwise set forth in this Release, I hereby release, acquit and forever discharge FivePrime, its parents and subsidiaries, and their officers, directors, agents, servants, employees, shareholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with FivePrime), arising out of or in any way related to agreements, events, acts or conduct at any time prior to the date I execute this Release, including all such claims and demands directly or indirectly arising out of or in any way connected with my employment with FivePrime or the termination of that employment, including claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in FivePrime, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including the federal Civil Rights Act of 1964, as amended; the federal Age Discrimination in Employment Act of 1967, as amended (" ***ADEA*** "); the federal Employee Retirement Income Security Act of 1974, as amended; the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination; fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; *provided, however,* that nothing in this paragraph shall be construed in any way to release FivePrime from its obligation to indemnify me pursuant to FivePrime's indemnification obligation pursuant to written agreement or applicable law.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under ADEA. I also acknowledge that t he consideration given under this Agreement for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing, as required by the ADEA, that: (A) my waiver and release do not apply to any rights or claims that may arise on or after the date I execute this Release; (B) I have the right to consult with an attorney prior to executing this Release; (C) I have 21 days to consider this Release (although I may choose to voluntarily execute this Release earlier); (D) I have seven days following my execution of this Release to revoke the Release by providing a written notice of revocation to FivePrime 's Chief Executive Officer; and (E) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after I execute this Release (provided that I do not revoke it).

I hereby represent that I have been paid all compensation owed and for all hours worked, I have received all the leave and leave benefits and protections for which I am eligible, pursuant to the federal Family and Medical Leave Act, the California Family Rights Act, any Company policy or applicable law, and I have not suffered any on-the-job injury or illness for which I have not already filed a workers' compensation claim.

Kevin Paul Baker, Ph.D.

Date: _____

EXHIBIT B

RELEASE

(GROUP TERMINATION – AGE 40 OR OLDER)

Certain capitalized terms used in this Release are defined in the Executive Change in Control Severance Benefits Agreement (the " ***Agreement*** ") which I have executed and of which this Release is a part.

I hereby confirm my obligations under FivePrime's Employee Confidentiality and Inventions Assignment Agreement (or other comparable agreement that I have signed, if any).

I acknowledge that I have read and understand Section 1542 of the California Civil Code which reads as follows: **"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."** I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims provided herein.

Except as otherwise set forth in this Release, I hereby release, acquit and forever discharge FivePrime, its parents and subsidiaries, and their officers, directors, agents, servants, employees, shareholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with FivePrime), arising out of or in any way related to agreements, events, acts or conduct at any time prior to the date I execute this Release, including all such claims and demands directly or indirectly arising out of or in any way connected with my employment with FivePrime or the termination of that employment, including claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in FivePrime, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including the federal Civil Rights Act of 1964, as amended; the federal Age Discrimination in Employment Act of 1967, as amended (" ***ADEA*** "); the federal Employee Retirement Income Security Act of 1974, as amended; the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination; fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; *provided, however,* that nothing in this paragraph shall be construed in any way to release FivePrime from its obligation to indemnify me pursuant to FivePrime's indemnification obligation pursuant to written agreement or applicable law.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under the ADEA. I also acknowledge that t he consideration given under this Agreement for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing, as required by the ADEA, that: (A) my waiver and release do not apply to any rights or claims that may arise on or after the date I execute this Release; (B) I have the right to consult with an attorney prior to executing this Release; (C) I have 45 days to consider this Release (although I may choose to voluntarily execute this Release earlier); (D) I have seven days following my execution of this Release to revoke the Release by providing a written notice of revocation to FivePrime 's Chief Executive Officer; (E) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after I execute this Release; and (F) I have received with this Release the required written disclosure for a "group termination" under the ADEA, including a detailed list of the job titles and ages of all employees who were terminated in this group termination and the ages of all employees of FivePrime in the same job classification or organizational unit who were not terminated.

I hereby represent that I have been paid all compensation owed and for all hours worked, I have received all the leave and leave benefits and protections for which I am eligible, pursuant to the federal Family and Medical Leave Act, the California Family Rights Act, any Company policy or applicable law, and I have not suffered any on-the-job injury or illness for which I have not already filed a workers' compensation claim.

_____

Kevin Paul Baker, Ph.D.

Date: _____

Five Prime Therapeutics, Inc.
2013 Omnibus Incentive Plan

Restricted Stock Agreement

This Restricted Stock Agreement (this " Agreement ") governs the grant of a Restricted Stock award (the " RSA ") by Five Prime Therapeutics, Inc., a Delaware corporation (" FivePrime "), to the award recipient identified below. The RSA is subject to the terms and conditions set forth in this Agreement, which includes this cover sheet and the attached additional terms and conditions, and in FivePrime's 2013 Omnibus Incentive Plan (as amended from time to time, the " Plan ").

Name of Award Recipient: _____

Grant Date: _____

Number of Shares of Common Stock Subject to the RSA:

	Shares	Vest Date
Vesting Schedule:	25% of shares	February 5, 2019
	50% of shares	February 5, 2020
	25% of shares	The earlier to occur of (A) the date of administration of the first dose (whether of cabiralizumab, a combination with cabiralizumab or a comparator) to the first human subject in (x) the first Phase 3 clinical trial of cabiralizumab or (y) the first human clinical trial that would, based on interactions with a regulatory authority, (1) satisfy the requirements of 21 CFR 312.21(c) or applicable corresponding foreign regulations or (2) is designed in a manner to allow for the addition of patients such that it could satisfy the requirements of 21 CFR 312.21(c) or applicable corresponding foreign regulations or is otherwise intended to support (either alone or together with data from one or more additional clinical trials) an application for marketing approval of cabiralizumab (or a new indication or expanded use) (either (x) or (y), a "Registration-Enabling Trial") and (B) the date of administration of the first dose (whether of FPA144, a combination with FPA144 or a comparator) to the first (1st) human subject in the first Registration-Enabling Trial of FPA144;

By your signature below, you agree to all of the terms and conditions described herein, in the attached Agreement and in the Plan, a copy of which is also attached. You acknowledge that you have carefully reviewed the Plan, and agree that the Plan will control in the event any provision of this Agreement should appear to be inconsistent.

Recipient: _____

(Signature)

Five Prime Therapeutics, Inc.

By: _____

Lewis T. Williams,
President and Chief Executive Officer

This is not a share certificate or a negotiable instrument.

Restricted Stock Agreement
(Additional Terms and Conditions)

Restricted Stock/ Nontransferability	The RSA is for the number of shares of Common Stock set forth on the cover sheet (the " Restricted Shares ") and is subject to the Vesting Schedule described on the cover sheet and below. The purchase price for the Restricted Shares is deemed paid by your services to FivePrime. To the extent not yet vested, your Restricted Shares may not be sold, assigned, transferred, pledged or otherwise encumbered, whether voluntarily or by operation of law, except by will or the laws of descent and distribution.
Vesting	FivePrime will issue the Restricted Shares in your name as of the Grant Date. Your right to the Restricted Shares will vest as set forth in the Vesting Schedule shown on the cover sheet, provided you then continue in Service as of the Vest Date set forth therein.
Leaves of Absence	For purposes of this Agreement, your Service does not terminate when you go on a *bona fide* leave of absence that was approved by the Company in writing if the terms of the leave provide for continued Service crediting, or when continued Service crediting is required by applicable law. Your Service terminates in any event when the approved leave ends unless you immediately return to active Service. The Company may determine, in its discretion, which leaves count for this purpose, and when your Service terminates for all purposes under the Plan in accordance with the provisions of the Plan.

Change in Control	Notwithstanding the Vesting Schedule set forth above, all unvested Restricted Shares will become 100% vested (i) immediately prior to the consummation of a Change in Control, if the RSA is not assumed, or an equivalent award is not substituted for the unvested Restricted Shares, by FivePrime or its successor, or (ii) if the RSA is assumed or substituted for in connection with a Change in Control, upon your Involuntary Termination within the 12-month period following the consummation of the Change in Control. " Involuntary Termination " means termination of your Service by reason of (i) your involuntary dismissal by FivePrime or its successor for reasons other than Cause; or (ii) your voluntary resignation for Good Reason as defined in any applicable employment or severance agreement, plan, or arrangement between you and FivePrime, or if none, then following (x) a substantial adverse alteration in your title or responsibilities from those in effect immediately prior to the Change in Control; (y) a reduction in your annual base salary as of immediately prior to the Change in Control (or as the same may be increased from time to time) or a material reduction in your annual target bonus opportunity as of immediately prior to the Change in Control; or (z) the relocation of your principal place of employment to a location more than 35 miles from your principal place of employment as of the Change in Control or FivePrime's requiring you to be based anywhere other than such principal place of employment (or permitted relocation thereof) except for required travel on FivePrime's business to an extent substantially consistent with your business travel obligations as of immediately prior to the Change in Control. To qualify as an "Involuntary Termination" you must provide notice to FivePrime of any of the foregoing occurrences within 90 days of the initial occurrence and FivePrime shall have 30 days to remedy such occurrence. To the extent not remedied, you must terminate employment within 60 days following the expiration of the 30 day cure period for such occurrence to constitute an Involuntary Termination.
Forfeiture of Unvested Common Stock	In the event that your Service terminates for any reason, you will forfeit to FivePrime all of the unvested Restricted Shares or with respect to which all applicable restrictions and conditions have not lapsed.
Issuance	The issuance of shares of Common Stock under this Agreement shall be evidenced in such a manner as FivePrime, in its discretion, deems appropriate, including book-entry, registration, or issuance of one or more stock certificates, with any unvested Restricted Shares bearing a legend with the appropriate restrictions imposed by this Agreement. As your interest in the Restricted Shares vests as described above, the recordation of the number of unvested Restricted Shares attributable to you will be appropriately modified. To the extent certificates are issued with regard to unvested Restricted Shares, such certificates will be held in escrow with the Secretary of FivePrime while such Restricted Shares remain unvested.

Withholding Taxes

You agree, as a condition of this grant, that you will make acceptable arrangements to pay any withholding or other taxes that may be due as a result of the payment of dividends or the vesting of Restricted Shares. In the event that FivePrime or any Affiliate determines that any federal, state, local, or foreign tax or withholding payment is required relating to the payment of dividends or the vesting of Restricted Shares under applicable laws, FivePrime or any Affiliate shall have the right to require such payments from you, or withhold such amounts from other payments due to you from FivePrime or any Affiliate (including by repurchasing or cancelling vested shares of Common Stock under this Agreement). Subject to the prior approval of FivePrime, which approval may be withheld by FivePrime, in its
sole discretion, you may elect to satisfy this withholding obligation, in whole or in part, by causing FivePrime to withhold shares of Common Stock otherwise issuable to you or by delivering to FivePrime shares of Common Stock. The shares of Common Stock so delivered or withheld may not be subject to any repurchase, forfeiture, unfulfilled vesting, or other similar requirements.

Code Section 83(b) Election

Under Code Section 83, the Fair Market Value of shares of Common Stock on the date any forfeiture restrictions applicable to such shares lapse will be reportable as ordinary income at the time such forfeiture restrictions lapse. For this purpose, "forfeiture restrictions" include the forfeiture as to unvested Restricted Shares described above. You may elect to be taxed at the time the Restricted Shares are acquired, rather than when such Restricted Shares cease to be subject to such forfeiture restrictions, by filing an election under Code Section 83(b) with the Internal Revenue Service within 30 days after the Grant Date. If you timely make an election under Code Section 83(b) with the Internal Revenue Service, you will have to make a tax payment based on the Fair Market Value of the Restricted Shares on the Grant Date. If you wish to make such an election, please contact the Finance group at FivePrime to obtain the form of election. Your failure to file this election with the Internal Revenue Service within the 30-day period will result in the recognition of ordinary income by you as the forfeiture restrictions lapse.

YOU ACKNOWLEDGE THAT IT IS YOUR SOLE RESPONSIBILITY, AND NOT FIVEPRIME'S, TO FILE A TIMELY ELECTION UNDER CODE SECTION 83(b), EVEN IF YOU REQUEST FIVEPRIME OR ITS REPRESENTATIVES TO MAKE THIS FILING ON YOUR BEHALF. YOU ARE RELYING SOLELY ON YOUR OWN ADVISORS WITH RESPECT TO THE DECISION AS TO WHETHER OR NOT TO FILE ANY CODE SECTION 83(b) ELECTION.

Retention Rights

This Agreement does not give you the right to be retained or employed by FivePrime or any Affiliate in any capacity. Unless otherwise specified in an employment or other written agreement between FivePrime or any Affiliate and you, FivePrime or any Affiliate reserve the right to terminate your Service at any time and for any reason.

Stockholder Rights

You have the right to vote Restricted Shares and to receive any dividends declared or paid on such stock. You have the right to a cash payment of any dividends within 45 days of the Vest Date of the Restricted Shares on which dividends are declared or paid if such dividends are not reinvested in shares of Common Stock. Any distributions you receive as a result of any stock split, stock dividend,

combination of shares or other similar transaction shall be deemed to be a part of the Restricted Shares and subject to the same conditions and restrictions applicable thereto. FivePrime may in its sole discretion require any dividends paid on the Restricted Shares to be reinvested in shares of Common Stock, which FivePrime may in its sole discretion deem to be a part of the Restricted Shares and subject to the same conditions and restrictions applicable thereto. No adjustments are made for dividends or other rights if the applicable record date occurs before your stock certificate is issued.

Forfeiture of Rights

If you should take actions in violation or breach of or in conflict with any agreement prohibiting solicitation of employees or clients of FivePrime or any Affiliate or any confidentiality obligation with respect to FivePrime or any Affiliate, FivePrime has the right to cause an immediate forfeiture of your rights to any unvested Restricted Shares and such Restricted Shares shall immediately expire.

Adjustments

In the event of a stock split, reverse stock split, stock dividend, recapitalization, combination or reclassification of shares, spin-off, or other similar change in capitalization or event, the number of Restricted Shares shall be adjusted pursuant to the Plan. Your Restricted Shares shall be subject to the terms of the agreement of merger, liquidation, or reorganization in the event FivePrime is subject to such corporate activity in accordance with the terms of the Plan.

Legends

All certificates representing unvested Restricted Shares issued in connection with this Agreement shall, where applicable, have endorsed thereon the following legend:

> "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE REGISTERED HOLDER, OR HIS OR HER PREDECESSOR IN INTEREST. A COPY OF SUCH AGREEMENT IS ON FILE AT THE PRINCIPAL OFFICE OF THE COMPANY AND WILL BE FURNISHED UPON WRITTEN REQUEST TO THE SECRETARY OF THE COMPANY BY THE HOLDER OF RECORD OF THE SHARES REPRESENTED BY THIS CERTIFICATE."

Applicable Law

This Agreement will be interpreted and enforced under the laws of the State of Delaware, other than any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Agreement to the substantive law of another jurisdiction.

The Plan

The text of the Plan is incorporated in this Agreement by reference.

Certain capitalized terms used in this Agreement are defined in the Plan and have the meaning set forth in the Plan.

This Agreement and the Plan constitute the entire understanding between you and FivePrime regarding the RSA. Any prior agreements, commitments, or negotiations concerning this grant are superseded; except that any written employment, consulting, confidentiality, non-solicitation, and/or severance agreement between you and FivePrime or any Affiliate shall supersede this Agreement with respect to its subject matter. Notwithstanding the foregoing, the vesting of this RSA shall not accelerate in the event of a "Covered Termination," as that term is defined in any Executive Severance Benefits Agreements FivePrime has entered or may enter into with the Recipient.

Data Privacy

In order to administer the Plan, FivePrime may process personal data about you. Such data may include the information provided in this Agreement and any changes thereto, other appropriate personal and financial data about you such as your contact information, payroll information, and any other information that might be deemed appropriate by FivePrime to facilitate the administration of the Plan.

By accepting this grant, you give explicit consent to FivePrime to process any such personal data.

Consent to Electronic Delivery

FivePrime may choose to deliver certain statutory materials relating to the Plan in electronic form. By accepting this grant you agree that FivePrime may deliver the Plan prospectus and FivePrime's annual report to you in an electronic format. If at any time you would prefer to receive paper copies of these documents, as you are entitled to, FivePrime would be pleased to provide copies. Please contact FivePrime's Secretary to request paper copies of these documents.

Other Agreements

You agree, as a condition of this grant, that you will execute such document(s) as necessary to become a party to any shareholder agreement or voting trust as FivePrime may require.

Code Section 409A

It is intended that the RSA comply with Code Section 409A or an exemption to Code Section 409A. To the extent that FivePrime determines that you would be subject to the additional 20% tax imposed on certain non-qualified deferred compensation plans pursuant to Code Section 409A as a result of any provision of any this Agreement, such provision shall be deemed amended to the minimum extent necessary to avoid application of such additional tax. The nature of any such amendment shall be determined by FivePrime. For purposes of this Agreement, a termination of Service only occurs

upon an event that would be a Separation from Service within the meaning of Code Section 409A.

This is not a stock certificate or a negotiable instrument .

By clicking the "Accept" button, you agree to all of the terms and conditions of this Agreement and in the Plan.

Exhibit 10.34

LEASE

THE COVE AT OYSTER POINT

HCP OYSTER POINT III LLC,

a Delaware limited liability company,

as Landlord,

and

FIVE PRIME THERAPEUTICS, INC.

a Delaware corporation,

as Tenant.

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THE COVE AT OYSTER POINT

LEASE

This Lease (the " **Lease** "), dated as of the Execution Date set forth in Section 1 of the Summary of Basic Lease Information (the " **Summary** "), below, is made by and between HCP OYSTER POINT III LLC, a Delaware limited liability company (" **Landlord** "), and FIVE PRIME THERAPEUTICS, INC., a Delaware corporation (" **Tenant** "). Landlord and Tenant may each be referred to in this Lease individually as a " **Party** " and collectively as the " **Parties** ."

SUMMARY OF BASIC LEASE INFORMATION

TERMS OF LEASE	DESCRIPTION
1.Execution Date:	December 12, 2016
2.Premises (Article 1).	
2.1Building:	That certain four-story building containing approximately 115,466 rentable square feet of space (" **RSF** ") located at: 111 Oyster Point Boulevard South San Francisco, California 94080
2.2Premises:	Approximately 115,466 RSF consisting of the entire Building, as further set forth in **Exhibit A** to the Lease.
3.Lease Term (Article 2).	
3.1Length of Term:	Ten (10) years, commencing on the Rent Commencement Date.
3.2Rent Commencement Date:	The later to occur of (i) January 1, 2018, and (ii) thirty (30) days after the Premises are "Ready for Occupancy", as defined in the Tenant Work Letter. The Parties anticipate that the Premises will be "Ready for Occupancy" on December 1, 2017.
3.3Lease Expiration Date:	The day prior to the tenth (10 th) anniversary of the Rent Commencement Date.

4.Base Rent (Article 3):

Lease Year	Annualized Base Rent	Monthly Installment of Base Rent	Monthly Base Rent per RSF
1 (months 1 – 6)*	N/A	$282,891.70	$4.90
1 (months 7 – 12)	N/A	$565,783.40	$4.90

2	$7,024,951.44	$585,412.62	$5.07
3	$7,274,358.00	$606,196.50	$5.25
4	$7,523,764.56	$626,980.38	$5.43
5	$7,787,027.04	$648,918.92	$5.62
6	$8,064,145.44	$672,012.12	$5.82
7	$8,341,263.84	$695,105.32	$6.02
8	$8,632,238.16	$719,353.18	$6.23
9	$8,937,068.40	$744,755.70	$6.45
10	$9,255,754.56	$771,312.88	$6.68

*Note that for the first six (6) months of the first Lease Year of the Lease Term, Tenant's Base Rent obligation has been calculated as if the Premises contained only 57,773 rentable square feet. Such calculation shall not affect Tenant's right to use the entire Premises, or Tenant's obligations under this Lease with respect to the entire Premises, including Tenant's obligation to pay Tenant's Share of Direct Expenses with respect to the Premises which shall be as provided in Section 6 of this Summary, all in accordance with the terms and conditions of this Lease.

Address for Payment of Rent :

If by check, remittances should be mailed to:
HCP Life Sciences REIT
File 51142
Los Angeles, CA 90074-1142

If by ACH, remit to:
HCP Life Sciences REIT Bank of America
ABA: 121000358
Acct: 1235928034

If by Wire, remit to:
HCP Life Sciences REIT Bank of America
ABA: 026009593
Acct: 1235928034

If by overnight mail, remit to:
Bank of America Lockbox Services
Lockbox 51142
2706 Media Center Drive
Los Angeles, CA 90065-1733

5.Tenant Improvement Allowance
(**Exhibit B**): $125.00 per RSF of the Premises (i.e., $14,433,250.00).

6. Tenant's Share (Article 4):	100%.
7.Permitted Use (Article 5):	The Premises shall be used only for general office, biotechnology and pharmaceutical research and development, engineering, lab scale manufacturing and laboratory and vivarium uses, including administrative offices and other lawful uses reasonably related to or incidental to such specified uses, all (i) consistent with first class life sciences and pharmaceutical projects in South San Francisco, California (" **First Class Life Sciences Projects** "), and (ii) in compliance with, and subject to, applicable laws and the terms of this Lease.
8.Letter of Credit (Article 21):	$1,542,625.76, subject to reduction as set forth in Article 21 .
9.Parking (Article 28):	291 unreserved parking spaces, including 5 dedicated visitor parking spaces, subject to the terms of Article 28.
10.Address of Tenant (Section 29.18):	Before the Rent Commencement Date: Five Prime Therapeutics, Inc. Two Corporate Drive South San Francisco, CA 94080 Attention: Chief Financial Officer After the Rent Commencement Date: Five Prime Therapeutics, Inc. 111 Oyster Point Boulevard South San Francisco, California 94080 Attention: Chief Financial Officer
11.Address of Landlord (Section 29.18):	See Section 29.18 .
12.Broker(s) (Section 29.24):	Kidder Mathews and CBRE, Inc.

1. PREMISES, BUILDING, PROJECT, AND COMMON AREAS.

1.1 **Premises, Building, Project and Common Areas** .

1.1.1 **The Premises** . Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the premises set forth in Section 2.2 of the Summary (the " **Premises** "). The outline of the Premises is set forth in **Exhibit A** attached hereto. The outline of the "Building" and the "Project," as those terms are defined in Section 1.1.2, are further depicted on the Site Plan attached hereto as **Exhibit A** . The Parties agree that the lease of the Premises is upon and subject to the terms, covenants and conditions herein set forth, and Tenant covenants as a material part of the consideration for this Lease to keep and perform each and all of such terms, covenants and conditions by it to be kept and performed. The Parties hereby acknowledge that the purpose of **Exhibit A** is to show the approximate location of the Premises only, and such Exhibit is not meant to constitute an agreement, representation or warranty as to the construction of the Premises, the precise area thereof or the specific location of the "Common Areas," as that term is defined in Section 1.1.3 , below, or the elements thereof or of the accessways to the Premises or the "Project," as that term is defined in Section 1.1.2 , below, and that the square footage of the Premises shall be as set forth in Section 2.1 of the Summary of Basic Lease Information. Except as specifically set forth in this Lease and in the Tenant Work Letter attached hereto as **Exhibit B** (the " **Tenant Work Letter** "), Landlord shall not be obligated to provide or pay for any improvement work or services related to the improvement of the Premises. Tenant also acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty regarding the condition of the Premises, the Building or the Project or with respect to the suitability of any of the foregoing for the conduct of Tenant's business, except as specifically set forth in this Lease and the Tenant Work Letter. Landlord shall deliver the Premises to Tenant in good, vacant, broom clean condition, in compliance with all laws, with the roof water-tight and with the plumbing, electrical systems, fire sprinkler system, elevator system, lighting, air conditioning, heating, and all other building systems serving the Premises in good operating condition and repair, and with all required occupancy permits (or equivalent final permit signoffs) relating to the Base Building (and not any specific Tenant Improvements) on or before the Rent Commencement Date, or such earlier date as Landlord and Tenant mutually agree. Landlord will be responsible for causing the exterior of the Building, the existing Building entrances, and all exterior Common Areas (including required striping and handicapped spaces in the parking areas) to be in compliance with ADA and parking requirements, to the extent required to allow the legal occupancy of the Premises or completion of the Tenant Improvements.

1.1.2 **The Building and The Project** . The Premises constitutes the entire building set forth in Section 2.1 of the Summary (the " **Building** "). The Building is part of an office/laboratory project currently known as "The Cove at Oyster Point." The term " **Project** ," as used in this Lease, shall mean (i) the Building and the Common Areas, (ii) the land (which is improved with landscaping, parking facilities and other improvements) upon which the Building and the Common Areas are located, (iii) the six (6) other office/laboratory buildings located or to be located at The Cove at Oyster Point, and the land upon which such adjacent office/laboratory buildings are or will be located, and (iv) at Landlord's discretion, any additional real property, areas, land, buildings or other improvements added thereto outside of the Project (provided that any such additions do not increase Tenant's obligations under this Lease).

1.1.3 **Common Areas** . Tenant shall have the non-exclusive right to use in common with other tenants in the Project, and subject to the rules and regulations referred to in Article 5, those portions of the Project which are provided, from time to time, for use in common by Landlord, Tenant and any other tenants of the Project (such areas, together with such other portions of the Project designated by Landlord, in its discretion, are collectively referred to herein as the " **Common Areas** "). Landlord shall maintain and operate the Common Areas, including all sprinkler and other systems serving the Common Areas, in a first class manner, and the use thereof shall be subject to such rules, regulations and restrictions as Landlord may reasonably make from time to time. Landlord reserves the right to close temporarily, make alterations or additions to, or change the location of elements of the Project and the Common Areas, provided that such closures, alterations, additions or changes shall not unreasonably interfere with Tenant's use of such Common Areas and provided, further, that in connection therewith Landlord shall use commercially reasonable efforts to minimize any interference with Tenant's use of and access to the Premises and parking areas. Landlord has constructed an amenities center in the Project for use by the tenants of the Project, Landlord shall operate and maintain such amenities center (which amenities center shall include a café and a fitness facility) throughout the Lease Term. If despite such commercially reasonable efforts Landlord is unable for any reason to maintain continuous operation of the amenities center during the Lease Term, in no event shall such failure be

deemed a default of the Lease, nor shall such failure impact the validity of this Lease and Landlord shall not be subject to any liability for such failure, provided that in such event Landlord shall utilize commercially reasonable efforts to provide replacement food services to Tenant (e.g., an on-site café in a different location or the routine scheduling of food trucks to the Project), or a replacement fitness facility for use by Tenant's employees in reasonable proximity to the Project.

1.1.4 **Delivery of Premises** . Landlord shall use commercially reasonable efforts and all reasonable diligence to complete construction of the Premises prior to January 1, 2018. In the event Landlord fails to cause the Premises to be "Ready for Occupancy" on or before February 1, 2018 (the " **Outside Date** "), then Landlord shall provide Tenant a credit against Base Rent first due under this Lease in the amount of "Holdover Premium", as defined below, required to be paid by Tenant during the period from the Outside Date until the date that is the earlier of (i) the date that is thirty (30) days after the Premises are Ready for Occupancy, and (ii) the date that Tenant actually vacates and surrenders its existing premises (the " **Holdover Period** "). The " **Holdover Premium** " shall be the amount of rent required to be paid by Tenant to its current landlord during the Holdover Period which is at a rate that is in excess of the rate payable immediately prior to the end of Tenant's existing lease (i.e., the rate payable during December, 2017). In no event shall the Holdover Premium required to be paid by Landlord exceed $144,192.10 per month of the Holdover Period. The Outside Date shall be extended for any delays in Landlord's completion of the Tenant Improvements in the Premises caused by "Tenant Delay", as set forth in Section 1(j) of the Tenant Work Letter, or "Unavoidable Delay", as set forth in Section 1(l) of the Tenant Work Letter.

1.2 **Rentable Square Feet of Premises** . Tenant hereby acknowledges and agrees that Landlord shall have the one-time right during the Lease Term to remeasure the rentable square footage of the Premises and/or Building in accordance with the terms of this Section 1.2 . Any such remeasurement shall be determined in accordance with the standards set forth in ANSI Z65.1-2012 (Method B Industrial Standard), as promulgated by the Building Owners and Managers Association (the " **BOMA Standard** "), and subject to related guidelines applicable thereto. Landlord's space planner/architect shall certify any such remeasurement and shall provide reasonable documentation to Tenant for Tenant's review following such remeasurement. In the event that Landlord's space planner/architect determines that the rentable square footage of the Premises and/or Building are different from those set forth in this Lease, all amounts, percentages and figures appearing or referred to in this Lease based upon such amounts (including, without limitation, the amount of the Base Rent, Tenant Improvement Allowance, Additional Tenant Improvement Allowance, and Tenant's Share) shall be modified in accordance with such determination, provided that Landlord and Tenant hereby acknowledge and agree that the rentable square footage of the Premises shall not increase by more than one percent (1%) from the rentable square footage set forth in Section 2.2 of the Summary. If such determination is made, it will be confirmed in writing by Landlord to Tenant.

1.3 **Right of First Offer** .

1.3.1 **Right of First Offer** . Subject to the terms and conditions of this Section 1.3 , Landlord hereby grants to Tenant an on-going right of first offer during the period commencing on the Rent Commencement Date and continuing for the first five (5) Lease Years of the initial Lease Term with respect to any space in the adjacent building of the Project located at 151 Oyster Point Boulevard or 171 Oyster Point Boulevard (the " **First Offer Space** "). Notwithstanding the foregoing, such first offer right of Tenant shall commence only following the expiration or earlier termination of the existing leases of the First Offer Space and any leases in the Project entered into prior to the Rent Commencement Date (collectively, the " **Existing Leases** ") (including renewals of any such lease, irrespective of whether any such renewal is currently set forth in such lease or is subsequently granted or agreed upon, and regardless of whether such renewal is consummated pursuant to a lease amendment or a new lease). Such right of first offer shall commence with respect to any space in 171 Oyster Point Boulevard only after the first lease of such space (i.e., Landlord shall have the right to enter an initial lease of the currently vacant space in such building without being required to offer such space to Tenant under this Section 1.3). The right of first offer granted in this Section 1.3 shall be subordinate to all rights granted in any Existing Leases, which rights relate to the First Offer Space and are set forth in the Existing Leases upon execution thereof, or in any "Intervening Lease", below, including, without limitation, any renewal, expansion, first offer, first refusal, first negotiation and other rights, regardless of whether such rights are executed strictly in accordance with their respective terms or pursuant to a lease amendment or a new lease (the " **Superior Rights** "). Tenant acknowledges that Landlord may be currently in discussions to lease certain portion of the First Offer Space, and, to the extent Landlord enters into any lease of the First Offer Space prior to the Rent Commencement Date under this Lease, the rights contained in such lease of the First Offer Space shall be

Superior Rights. Further, such right of first offer shall be subject and subordinate to the terms of any renewal right contained in any lease of the First Offer Space entered into by Landlord with a third party after Tenant's failure to exercise its right of first offer as provided in this Section 1.3 (the " **Intervening Leases** "). All such tenants under Existing Leases or Intervening Leases, are collectively referred to as the " **Superior Right Holders** ".

1.3.2 **Procedure for Lease** .

1.3.2.1 **Procedure for Offer** . Subject to the terms hereof, Landlord shall notify Tenant (the " **First Offer Notice** ") prior to entering into any lease with a third party for the First Offer Space, which notice shall outline the base rent, allowance amounts if any, length of term, and other economic terms on which Landlord would be willing to lease the First Offer Space (as set forth in such proposal) to Tenant (the " **Fundamental Terms** "). Pursuant to such First Offer Notice, Landlord shall offer to lease to Tenant the applicable First Offer Space on the Fundamental Terms. In no event shall Landlord have the obligation to deliver a First Offer Notice (and Tenant shall have no right to exercise its right under this Section 1.3) to the extent that the "First Offer Commencement Date," as that term is defined in Section 1.3.2.4 below, is anticipated by Landlord to occur on or after the first (1 st) day of the sixth (6 th) Lease Year (the " **ROFO Expiration** ").

1.3.2.2 **Procedure for Acceptance** . If Tenant wishes to exercise Tenant's right of first offer with respect to the First Offer Space described in the First Offer Notice, then within twenty (20) days after delivery of the First Offer Notice to Tenant, Tenant shall deliver notice to Landlord of Tenant's irrevocable exercise of its right of first offer with respect to all of the First Offer Space described in the First Offer Notice on the Fundamental Terms provided for therein. Tenant shall be required to lease all of the space offered in a particular First Offer Notice, and shall have no right to lease any lesser portion thereof. If Tenant does not so notify Landlord within such twenty (20) day period of Tenant's exercise of its first offer right, then Landlord shall be free to negotiate and enter into a lease for the First Offer Space to anyone whom it desires on terms that are not more than ninety percent (90%), on a net economic basis, of the Fundamental Terms initially provided (the " **Materially Better Terms** "). If (i) Landlord has not entered into any such lease within one hundred eighty (180) days after the date of delivery of the First Offer Notice, or (ii) Landlord intends to enter into a lease on Materially Better Terms, then, prior to entering into any lease of such First Offer Space, Landlord shall first again offer such space to Tenant in accordance with the terms of this Section 1.3 .

1.3.2.3 **Construction In First Offer Space** . Unless the Fundamental Terms provided to Tenant for the First Offer Space otherwise specify, Tenant shall take the First Offer Space in its "as is" condition, and Landlord shall not be obligated to provide or pay for any improvement of the First Offer Space. For the avoidance of doubt, if the Fundamental Terms include a tenant improvement allowance or a turn-key build out, Tenant shall receive the same allowance or turn-key build out, as applicable.

1.3.2.4 **Lease of First Offer Space** . If Tenant timely exercises Tenant's right of first offer to lease First Offer Space as set forth herein, Landlord and Tenant shall cooperate in good faith to enter into an amendment to this Lease (the " **First Offer Space Amendment** ") for such First Offer Space pursuant to this Section 1.3 . Tenant's lease of such First Offer Space shall be upon the express terms set forth in the First Offer Notice, but otherwise upon the same general terms and conditions set forth in this Lease and this Section 1.3 . The First Offer Space Lease shall not contain the rights set forth in Section 2.2 , below. The term of Tenant's lease of the First Offer Space shall commence on the date set forth in the First Offer Notice (the " **First Offer Commencement Date** ") (provided that such First Offer Commencement Date shall in no event be earlier than the date of Landlord's delivery of the applicable First Offer Space to Tenant), and shall expire on the applicable date set forth in the First Offer Notice (the " **First Offer Space Expiration Date** ").

1.3.2.5 **Limitation of Exercise of First Offer Right** . The right to lease First Offer Space as provided in this Section 1.3 may not be exercised if, as of the date of the attempted exercise of the expansion option by Tenant, Tenant is in default under this Lease, beyond any applicable notice and cure period. The terms of this Section 1.3 shall be personal to the originally named Tenant hereunder (the " **Original Tenant** ") or a Permitted Transferee, and may not be exercised by any assignee, subtenant, or other Transferee of Original Tenant's interest in this Lease other than a Permitted Transferee. Tenant's right of first offer shall be continuous during the first five (5) years of the initial Lease Term. Tenant's rejection of any particular offer shall not relieve Landlord of its obligation to again offer the First Offer Space to Tenant any time the First Offer Space subsequently becomes available (provided

that Tenant's rights under this Section 1.3 shall be subject and subordinate to the renewal rights of any tenant under a lease entered into by Landlord after Tenant has declined or failed to respond to a First Offer Notice).

1.4 **Right of Negotiation .** Landlord hereby grants to Tenant a right of negotiation during the period commencing on the Rent Commencement Date and continuing for the first five (5) Lease Years of the initial Lease Term with respect to any space becoming available on a multi-tenant basis (i.e., available for a lease of less than materially all of a particular building) with respect to the buildings located at 121, 151 or 171 Oyster Point Boulevard, or in the buildings to be constructed at 131, 161 or 181 Oyster Point Boulevard (collectively, the " **Negotiation Space** "). Notwithstanding the foregoing, such negotiation right of Tenant shall be subordinate to all rights of Superior Right Holders.

1.4.1 **Procedure for Notice .** Tenant, at Tenant's option, may notify Landlord not more than once in any calendar year, if Tenant is interested in leasing space in the Project. Thereafter, Landlord shall notify Tenant (a " **Negotiation Notice** ") from time to time when the Negotiation Space or any portion thereof becomes available for lease to third parties (other than Superior Right Holders) on a multi-tenant basis. A Negotiation Notice shall describe such available space.

1.4.2 **Procedure for Negotiation .** If Tenant wishes to exercise its right of negotiation with respect to the space described in a Negotiation Notice, then within three (3) business days of delivery of such Negotiation Notice to Tenant, Tenant shall deliver notice to Landlord of Tenant's desire to discuss a lease of such space. If Tenant timely exercises its right of negotiation as set forth herein, Landlord and Tenant shall, within five (5) business days after Landlord's receipt of Tenant's notice, meet and discuss the lease of the space described in such Negotiation Notice from Landlord to Tenant (the " **Negotiation Meeting** "). If Landlord and Tenant do not reach agreement as to the material economic terms of the lease of such space within fifteen (15) business days after the Negotiation Meeting, then Landlord, in its sole and absolute discretion, shall have the right to terminate negotiations with Tenant and to lease the space described in the Negotiation Notice to anyone whom Landlord desires on any terms which Landlord desires. Notwithstanding anything to the contrary contained herein, Tenant must elect to exercise its right of negotiation, if at all, with respect to all of the space offered by Landlord to Tenant at any particular time, and Tenant may not elect to lease only a portion thereof. If Tenant does not exercise its right of negotiation with respect to any space described in a Negotiation Notice or if Tenant fails to respond to a Negotiation Notice within three (3) business days of delivery thereof, then Tenant's right of negotiation as set forth in this Section 1.3 shall terminate as to all of the space described in such Negotiation Notice.

1.4.3 **Termination of Right of Negotiation .** The rights contained in this Section 1.4 may only be exercised by Tenant if Tenant occupies the entire Premises. The right of negotiation granted herein shall terminate as to any space described in a Negotiation Notice upon the failure by Tenant to exercise its right of negotiation with respect to such space as offered by Landlord. Tenant shall not have the right to lease Negotiation Space, as provided in this Section 1.4, if, as of the date of the attempted exercise of any right of negotiation by Tenant, Tenant is in default under this Lease or Tenant has previously been in default under this Lease more than once.

2. LEASE TERM; OPTION TERM.

2.1 **Lease Term** . The terms and provisions of this Lease shall be effective as of the Execution Date. The term of this Lease (the " **Lease Term** ") shall be as set forth in Section 3.1 of the Summary, shall commence on the date set forth in Section 3.2 of the Summary (the " **Rent Commencement Date** "), and shall terminate on the date set forth in Section 3.3 of the Summary (the " **Lease Expiration Date** ") unless this Lease is sooner terminated as hereinafter provided. For purposes of this Lease, the term " **Lease Year** " shall mean each consecutive twelve (12) month period during the Lease Term. At any time during the Lease Term, Landlord may deliver to Tenant a notice in the form as set forth in **Exhibit C** , attached hereto, as a confirmation only of the information set forth therein, which Tenant shall execute and return to Landlord within ten (10) business days of receipt thereof. Tenant shall have the right to occupy the Premises (or certain portions of the Premises) to conduct its business prior to the Rent Commencement Date, provided that (A) Tenant shall give Landlord at least three (3) business days' prior notice of any such occupancy of the Premises (or portion thereof), (B) a temporary certificate of occupancy or its equivalent shall have been issued by the appropriate governmental authorities for each such portion to be occupied, and (C) all of the terms and conditions of this Lease shall apply (including, without limitation Tenant's obligation to deliver a certificate of insurance to Landlord in accordance with the terms of Section 10.4 below), other than Tenant's obligation

to pay "Base Rent," as that term is defined in Article 3 below, and "Tenant's Share" of the annual "Building Direct Expenses," as those terms are defined in Article 4, below, as though the Rent Commencement Date had occurred.

2.2 **Option Term** .

2.2.1 **Option Right** . Landlord hereby grants to the Original Tenant, and its "Permitted Assignees", as that term is defined in Section 14.8 , below, one (1) option to extend the Lease Term for a period of five (5) years (the " **Option Term** "), which option shall be irrevocably exercised only by written notice delivered by Tenant to Landlord not more than twelve (12) months nor less than nine (9) months prior to the expiration of the initial Lease Term, provided that the following conditions **(** the " **Option Conditions** ") are satisfied: (i) as of the date of delivery of such notice, Tenant is not in default under this Lease, after the expiration of any applicable notice and cure period; (ii) Tenant has not previously been in default under this Lease, after the expiration of any applicable notice and cure period, more than twice in the twelve (12) month period prior to the date of Tenant's attempted exercise; and (iii) the Lease then remains in full force and effect. Landlord may, at Landlord's option, exercised in Landlord's sole and absolute discretion, waive any of the Option Conditions in which case the option, if otherwise properly exercised by Tenant, shall remain in full force and effect. Upon the proper exercise of such option to extend, and provided that Tenant satisfies all of the Option Conditions (except those, if any, which are waived by Landlord), the Lease Term, as it applies to the Premises, shall be extended for a period of five (5) years. The rights contained in this Section 2.2 shall be personal to Original Tenant and any Permitted Assignees, and may be exercised by Original Tenant or such Permitted Assignees (and not by any assignee, sublessee or other "Transferee," as that term is defined in Section 14.1 of Tenant's interest in this Lease).

2.2.2 **Option Rent** . The annual Rent payable by Tenant during the Option Term (the " **Option Rent** ") shall be equal to the "Fair Rental Value," as that term is defined below, for the Premises as of the commencement date of the Option Term. The " **Fair Rental Value** ," as used in this Lease, shall be equal to the annual rent per rentable square foot (including additional rent and considering any "base year" or "expense stop" applicable thereto), including all escalations, at which tenants (pursuant to leases consummated within the twelve (12) month period preceding the first day of the Option Term), are leasing non-sublease, non-encumbered, non-equity space that is not significantly greater or smaller in size than the subject space, with a comparable level of improvements (excluding any property that Tenant would be allowed to remove from the Premises at the termination of this Lease), for a comparable lease term, in an arm's length transaction, which comparable space is located in the "Comparable Buildings," as that term is defined in this Section 2.2.2 (transactions satisfying the foregoing criteria shall be known as the " **Comparable Transactions** "), taking into consideration the following concessions (the " **Concessions** "): (a) rental abatement concessions, if any, being granted such tenants in connection with such comparable space; (b) tenant improvements or allowances provided or to be provided for such comparable space, and taking into account the value, if any, of the existing improvements in the subject space, such value to be based upon the age, condition, design, quality of finishes and layout of the improvements and the extent to which the same can be utilized by a general office/lab user other than Tenant; and (c) other reasonable monetary concessions being granted such tenants in connection with such comparable space. The Concessions shall be reflected in the effective rental rate (which effective rental rate shall take into consideration the total dollar value of such Concessions as amortized on a straight-line basis over the applicable term of the Comparable Transaction (in which case such Concessions evidenced in the effective rental rate shall not be granted to Tenant)) payable by Tenant. The term " **Comparable Buildings** " shall mean the Building and those other life sciences buildings that are comparable to the Building in terms of age (based upon the date of completion of construction or major renovation of to the building), quality of construction, level of services and amenities, size and appearance, and are located in South San Francisco, California and the surrounding commercial area.

2.2.3 **Determination of Option Rent** . In the event Tenant timely and appropriately exercises an option to extend the Lease Term, Landlord shall notify Tenant of Landlord's determination of the Option Rent within thirty (30) days following Landlord's receipt of Tenant's exercise notice. If Tenant, on or before the date which is ten (10) business days following Landlord's receipt of Tenant's exercise notice, fails to accept or object to Landlord's determination of the Option Rent, Tenant's right to extend this Lease pursuant to this Section 2.2 shall be of no further force or effect. If Tenant, on or before the date that is ten (10) business days following the date upon which Tenant receives Landlord's determination of the Option Rent, objects to Landlord's determination of the Option Rent, then Landlord and Tenant shall attempt to agree upon the Option Rent using their best good-faith efforts. If Landlord and Tenant fail to reach agreement within ten (10) business days following Tenant's objection to the Option

Rent (the " **Outside Agreement Date** "), then Tenant shall have the right to withdraw its exercise of the option by delivering written notice thereof to Landlord within five (5) business days thereafter, in which event Tenant's right to extend this Lease pursuant to this Section 2.2 shall be of no further force or effect. If Tenant does not withdraw its exercise of the extension option, each Party shall make a separate determination of the Option Rent, as the case may be, within ten (10) business days after the Outside Agreement Date, and such determinations shall be submitted to arbitration in accordance with Sections 2.2.3.1 through 2.2.3.7.

2.2.3.1 Landlord and Tenant shall each appoint one arbitrator who shall be a real estate appraiser who shall have been active over the five (5) year period ending on the date of such appointment in the appraisal of other class A life sciences buildings located in the South San Francisco market area. The determination of the arbitrators shall be limited solely to the issue of whether Landlord's or Tenant's submitted Option Rent is the closest to the actual Option Rent, taking into account the requirements of Section 2.2.2, as determined by the arbitrators. Each such arbitrator shall be appointed within fifteen (15) days after the Outside Agreement Date. Landlord and Tenant may consult with their selected arbitrators prior to appointment and may select an arbitrator who is favorable to their respective positions. The arbitrators so selected by Landlord and Tenant shall be deemed " **Advocate Arbitrators** ."

2.2.3.2 The two (2) Advocate Arbitrators so appointed shall be specifically required pursuant to an engagement letter within ten (10) days of the date of the appointment of the last appointed Advocate Arbitrator to agree upon and appoint a third arbitrator (" **Neutral Arbitrator** ") who shall be qualified under the same criteria set forth hereinabove for qualification of the two Advocate Arbitrators, except that neither the Landlord or Tenant or either Parties' Advocate Arbitrator may, directly or indirectly, consult with the Neutral Arbitrator prior or subsequent to his or her appearance. The Neutral Arbitrator shall be retained via an engagement letter jointly prepared by Landlord's counsel and Tenant's counsel.

2.2.3.3 The three arbitrators shall, within thirty (30) days of the appointment of the Neutral Arbitrator, reach a decision as to whether the Parties shall use Landlord's or Tenant's submitted Option Rent, and shall notify Landlord and Tenant thereof.

2.2.3.4 The decision of the majority of the three arbitrators shall be binding upon Landlord and Tenant.

2.2.3.5 If either Landlord or Tenant fails to appoint an Advocate Arbitrator within fifteen (15) days after the Outside Agreement Date, then either Party may petition the presiding judge of the Superior Court of San Mateo County to appoint such Advocate Arbitrator subject to the criteria in Section 2.2.3.1, or if he or she refuses to act, either Party may petition any judge having jurisdiction over the Parties to appoint such Advocate Arbitrator.

2.2.3.6 If the two (2) Advocate Arbitrators fail to agree upon and appoint the Neutral Arbitrator, then either Party may petition the presiding judge of the Superior Court of San Mateo County to appoint the Neutral Arbitrator, subject to criteria in Section 2.2.3.1, or if he or she refuses to act, either Party may petition any judge having jurisdiction over the Parties to appoint such arbitrator.

2.2.3.7 The cost of the arbitration shall be paid by Landlord and Tenant equally.

2.2.3.8 In the event that the Option Rent shall not have been determined pursuant to the terms hereof prior to the commencement of the Option Term, Tenant shall be required to pay the Option Rent initially provided by Landlord to Tenant, and upon the final determination of the Option Rent, the payments made by Tenant shall be reconciled with the actual amounts of Option Rent due, and the appropriate Party shall make any corresponding payment to the other Party within thirty (30) days thereafter.

3. BASE RENT. Tenant shall pay, without prior notice or demand, to Landlord at the address set forth in Section 4 of the Summary, or, at Landlord's option, at such other place as Landlord may from time to time designate in writing, by a check for currency that, at the time of payment, is legal tender for private or public debts in the United States of America, base rent (" **Base Rent** ") as set forth in Section 4 of the Summary, payable in equal monthly

installments as set forth in Section 4 of the Summary in advance on or before the first day of each and every calendar month during the Lease Term, commencing on the Rent Commencement Date, without any setoff or deduction whatsoever. The Base Rent for the first full month of the Lease Term shall be paid promptly after Parties' full execution and delivery of this Lease. If any Rent payment date (including the Rent Commencement Date) falls on a day of the month other than the first day of such month or if any payment of Rent is for a period that is shorter than one month, the Rent for any fractional month shall accrue on a daily basis for the period from the date such payment is due to the end of such calendar month or to the end of the Lease Term at a rate per day that is equal to 1/365 of the applicable annual Rent. All other payments or adjustments required to be made under the terms of this Lease that require proration on a time basis shall be prorated on the same basis.

4. ADDITIONAL RENT.

4.1 **General Terms** .

4.1.1 **Direct Expenses; Additional Rent** . In addition to paying the Base Rent specified in Article 3 of this Lease, Tenant shall pay " **Tenant's Share** " of the annual " **Direct Expenses** ," as those terms are defined in Sections 4.2.6 and 4.2.2 , respectively, allocable to the Building as described in Section 4.3 . Such payments by Tenant, together with any and all other amounts payable by Tenant to Landlord pursuant to the terms of this Lease, are hereinafter collectively referred to as the " **Additional Rent** ", and the Base Rent and the Additional Rent are herein collectively referred to as " **Rent** ." All amounts due under this Article 4 as Additional Rent shall be payable for the same periods and in the same manner as the Base Rent. Without limitation on other obligations of Tenant which survive the expiration of the Lease Term, the obligations of Tenant to pay the Additional Rent provided for in this Article 4 shall survive the expiration of the Lease Term.

4.1.2 **Triple Net Lease** . Landlord and Tenant acknowledge that, to the extent provided in this Lease, it is their intent and agreement that this Lease be a " **TRIPLE NET** " lease and that as such, the provisions contained in this Lease are intended to pass on to Tenant or reimburse Landlord for the costs and expenses reasonably associated with this Lease, the Building and the Project, and Tenant's operation therefrom to the extent provided in this Lease. To the extent such costs and expenses payable by Tenant cannot be charged directly to, and paid by, Tenant, such costs and expenses shall be paid by Landlord but reimbursed by Tenant as Additional Rent.

4.2 **Definitions of Key Terms Relating to Additional Rent** . As used in this Article 4 , the following terms shall have the meanings hereinafter set forth:

4.2.1 Intentionally Deleted.

4.2.2 " **Direct Expenses** " shall mean " **Operating Expenses** " and " **Tax Expenses** ."

4.2.3 " **Expense Year** " shall mean each calendar year in which any portion of the Lease Term falls, through and including the calendar year in which the Lease Term expires, provided that Landlord, upon notice to Tenant, may change the Expense Year from time to time to any other twelve (12) consecutive month period, and, in the event of any such change, Tenant's Share of Direct Expenses shall be equitably adjusted for any Expense Year involved in any such change.

4.2.4 " **Operating Expenses** " shall mean all expenses, costs and amounts of every kind and nature which Landlord pays or accrues during any Expense Year with respect to the ownership, management, maintenance, security, repair, replacement, restoration or operation of the Project, or any portion thereof. Without limiting the generality of the foregoing, Operating Expenses shall specifically include any and all of the following: (i) the cost of supplying utilities (to the extent not separately metered), the cost of operating, repairing and maintaining the utility, mechanical, sanitary, storm drainage, and elevator systems, and the cost of maintenance and service contracts in connection therewith; (ii) the cost of licenses, certificates, permits and inspections and the reasonable cost of contesting any governmental enactments that are reasonably likely to increase Operating Expenses during the Lease Term, and the costs incurred in connection with a governmentally mandated transportation system management program or similar program; (iii) the cost of all insurance carried by Landlord in connection with the Project and Premises as reasonably determined by Landlord; (iv) the cost of landscaping, relamping, and all supplies, tools,

equipment and materials used in the operation, repair and maintenance of the Project, or any portion thereof; (v) the cost of parking area operation, repair, restoration, and maintenance; (vi) management and/or incentive fees, consulting fees, legal fees and accounting fees, of all contractors and consultants in connection with the management, operation, maintenance and repair of the Project; (vii) payments under any equipment rental agreements; (viii) subject to item (f), below, wages, salaries and other compensation and benefits, including taxes levied thereon, of all persons engaged in the operation, maintenance and security of the Project; (ix) costs under any easement pertaining to the sharing of costs by the Project; (x) subject to clause (xiii) below, operation, repair, maintenance and replacement of all systems and equipment and components thereof of the Project; (xi) the cost of janitorial, alarm, security and other services, replacement of wall and floor coverings, ceiling tiles and fixtures in Common Areas, maintenance and replacement of curbs and walkways, repair to roofs and re-roofing; (xii) amortization (including interest on the unamortized cost) over such period of time as Landlord shall reasonably determine, of the cost of acquiring or the rental expense of personal property used in the maintenance, operation and repair of the Project, or any portion thereof; (xiii) the cost of capital improvements or other capital expenditures incurred in connection with the Project including in connection with the repair or replacement of all systems and equipment and components thereof of the Project) that are (A) intended to effect economies in the operation or maintenance of the Project, or any portion thereof, or to reduce current or future Operating Expenses or to enhance the safety or security of the Project or its occupants, (B) required to comply with present or anticipated conservation programs, (C) replacements or modifications of nonstructural items located in the Common Areas required to keep the Common Areas in good order or condition, or (D) required under any governmental law or regulation which become effective after the Rent Commencement Date; provided, however, that any capital expenditure shall be amortized (including reasonable interest on the amortized cost) over the reasonable useful life of such capital item and the amount includible in Operating Expenses shall be limited to the monthly amortized cost thereof; and (xiv) costs, fees, charges or assessments imposed by, or resulting from any mandate imposed on Landlord by, any federal, state or local government for fire and police protection, trash removal, community services, or other services that do not constitute "Tax Expenses" as that term is defined in Section 4.2.5 , and (xv) payments under any easement, license, operating agreement, declaration, restrictive covenant, or instrument pertaining to the sharing of costs by the Building, including any covenants, conditions and restrictions affecting the property, and reciprocal easement agreements affecting the property, any parking licenses, and any agreements with transit agencies affecting the Property (collectively, " **Underlying Documents** "). Notwithstanding the foregoing, for purposes of this Lease, Operating Expenses shall not, however, include:

(a) costs, including legal fees, space planners' fees, advertising and promotional expenses (except as otherwise set forth above), and brokerage fees incurred in connection with the original construction or development, or original or future leasing of the Project, and costs, including permit, license and inspection costs, incurred with respect to the installation of tenant improvements made for new tenants initially occupying space in the Project after the Rent Commencement Date or incurred in renovating or otherwise improving, decorating, painting or redecorating vacant space for tenants or other occupants of the Project (excluding, however, such costs relating to any common areas of the Project or parking facilities);

(b) except as set forth in items (xii), (xiii), and (xiv) above, depreciation, interest and principal payments on mortgages and other debt costs, if any, penalties and interest;

(c) costs for which the Landlord is reimbursed by any tenant or occupant of the Project or by insurance by its carrier or any tenant's carrier or by anyone else, electric power costs for which any tenant directly contracts with the local public service company and costs of utilities and services provided to other tenants that are not provided to Tenant;

(d) any bad debt loss, rent loss, or reserves for bad debts or rent loss or other reserves to the extent not used in the same year;

(e) costs associated with the operation of the business of the partnership or entity that constitutes the Landlord, as the same are distinguished from the costs of operation of the Project (which shall specifically include, but not be limited to, accounting costs associated with the operation of the Project). Costs associated with the operation of the business of the partnership or entity that constitutes the Landlord include costs of partnership accounting and legal matters, costs of defending any lawsuits with any mortgagee (except as the actions of the Tenant may be in issue), costs of selling, syndicating, financing, mortgaging or hypothecating any of the Landlord's interest in the Project, and costs incurred in connection with any disputes

between Landlord and its employees, between Landlord and Project management, or between Landlord and other tenants or occupants;

(f) the wages and benefits of any employee who does not devote substantially all of his or her employed time to the Project unless such wages and benefits are prorated to reflect time spent on operating and managing the Project vis-a-vis time spent on matters unrelated to operating and managing the Project; provided, that in no event shall Operating Expenses for purposes of this Lease include wages and/or benefits attributable to personnel above the level of Project manager;

(g) amount paid as ground rental for the Project by the Landlord;

(h) except for a property management fee not to exceed three percent (3%) of gross revenues, overhead and profit increment paid to the Landlord, and any amounts paid to the Landlord or to subsidiaries or affiliates of the Landlord for services in the Project to the extent the same exceeds the costs of such services rendered by qualified, first-class unaffiliated third parties on a competitive basis;

(i) any compensation paid to clerks, attendants or other persons in commercial concessions operated by the Landlord (other than as direct reimbursement for costs that, if incurred directly by Landlord, would properly be included in Operating Expenses);

(j) rentals and other related expenses incurred in leasing air conditioning systems, elevators or other equipment that if purchased the cost of which would be excluded from Operating Expenses as a capital cost, except equipment not affixed to the Project that is used in providing engineering, janitorial or similar services and, further excepting from this exclusion such equipment rented or leased to remedy or ameliorate an emergency condition in the Project;

(k) all items and services for which Tenant or any other tenant in the Project reimburses Landlord or which Landlord provides selectively to one or more tenants (other than Tenant) without reimbursement;

(l) any costs expressly excluded from Operating Expenses elsewhere in this Lease;

(m) rent for any office space occupied by Project management personnel;

(n) costs arising from the gross negligence or willful misconduct of Landlord or its agents, employees or contractors in connection with this Lease;

(o) costs incurred to comply with laws relating to the removal or remediation of hazardous material (as defined under applicable law) from the Building or Project, and any costs of fines or penalties relating to the presence of hazardous material in, on, under or about the Building or Project, in each case to the extent not brought into the Building or Premises by Tenant or any Tenant Parties;

(p) costs to correct any construction defect in the Project or to remedy any violation of a covenant, condition, restriction, underwriter's requirement or law that exists as of the Rent Commencement Date;

(q) capital costs occasioned by casualties or condemnation.

(r) legal fees, accountants' fees (other than normal bookkeeping expenses) and other expenses incurred in connection with disputes of tenants or other occupants of the Project or associated with the enforcement of the terms of any leases with tenants or the defense of Landlord's title to or interest in the Project or any part thereof;

(s) costs incurred due to a violation by Landlord or any other tenant of the Project of the terms and conditions of a lease;

(t) costs incurred in connection with the construction of any additional buildings in the Project; and

(u) self-insurance retentions

4.2.5 **Taxes** .

4.2.5.1 " **Tax Expenses** " shall mean all federal, state, county, or local governmental or municipal taxes, fees, charges or other impositions of every kind and nature, whether general, special, ordinary or extraordinary (including, without limitation, real estate taxes, general and special assessments, transit taxes, leasehold taxes or taxes based upon the receipt of rent, including gross receipts or sales taxes applicable to the receipt of rent, unless required to be paid by Tenant, personal property taxes imposed upon the fixtures, machinery, equipment, apparatus, systems and equipment, appurtenances, furniture and other personal property used in connection with the Project, or any portion thereof), that Landlord shall pay or accrue during any Expense Year (without regard to any different fiscal year used by such governmental or municipal authority) because of or in connection with the ownership, leasing and operation of the Project, or any portion thereof.

4.2.5.2 Tax Expenses shall include any: (i) tax on the rent, right to rent or other income from the Project, or any portion thereof, or as against the business of leasing the Project, or any portion thereof; (ii) assessment, tax, fee, levy or charge in addition to, or in substitution, partially or totally, of any assessment, tax, fee, levy or charge previously included within the definition of real property tax; (iii) assessment, tax, fee, levy, or charge allocable to or measured by the area of the Premises or the Rent payable hereunder, including any business or gross income tax or excise tax with respect to the receipt of such rent, or upon or with respect to the possession, leasing, operating, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises, or any portion thereof; and (iv) Any assessment, tax, fee, levy or charge, upon this transaction or any document to which Tenant is a party, creating or transferring an interest or an estate in the Premises or the improvements thereon.

4.2.5.3 Any reasonable costs and expenses (including reasonable attorneys' and consultants' fees) incurred in attempting to protest, reduce or minimize Tax Expenses shall be included in Tax Expenses in the Expense Year such expenses are incurred. Tax refunds shall be credited against Tax Expenses and refunded to Tenant regardless of when received, based on the Expense Year to which the refund is applicable, provided that in no event shall the amount to be refunded to Tenant for any such Expense Year exceed the total amount paid by Tenant as Additional Rent under this Article 4 for such Expense Year. If Tax Expenses for any period during the Lease Term or any extension thereof are increased after payment thereof for any reason, including, without limitation, error or reassessment by applicable governmental or municipal authorities, Tenant shall pay Landlord upon demand Tenant's Share of any such increased Tax Expenses. Notwithstanding anything to the contrary contained in this Section 4.2.5 , there shall be excluded from Tax Expenses (i) all excess profits taxes, franchise taxes, gift taxes, capital stock taxes, inheritance and succession taxes, transfer taxes, estate taxes, federal and state income taxes, and other taxes to the extent applicable to Landlord's net income (as opposed to rents, receipts or income attributable to operations at the Project), (ii) any items included as Operating Expenses, (iii) any items paid by Tenant under Section 4.5, (iv) assessments in excess of the amount that would be payable if such assessment expense were paid in installments over the longest permitted term; (v) taxes imposed on land and improvements other than the Project; (vi) tax increases resulting from the improvement of any of the Project for the sole use of other occupants; and (vii) any penalties or interest thereon due to Landlord’s late or non-payment of any taxes.

4.2.5.4 At Tenant's request, and provided that it is then deemed advisable by Landlord in the exercise of Landlord’s reasonable business judgment (i.e., Landlord has a reasonable expectation of success of such appeal), Landlord shall bring or cause to be brought an application or proceeding for reduction of the assessed valuation of the Building or Project, as applicable, in order to reduce Tax Expenses.

4.2.6 " **Tenant's Share** " shall mean the percentage set forth in Section 6 of the Summary.

4.3 **Allocation of Direct Expenses** . The Parties acknowledge that the Building is a part of a multi-building project and that the costs and expenses incurred in connection with the Project (i.e., the Direct Expenses) should be shared between the Building and the other buildings in the Project. Accordingly, as set forth in Section 4.2, Direct Expenses (which consist of Operating Expenses and Tax Expenses) are determined annually for the Project as

a whole, and a portion of the Direct Expenses, which portion shall be determined by Landlord on an equitable basis, shall be allocated to the Building (as opposed to other buildings in the Project). Such portion of Direct Expenses allocated to the Building shall include all Direct Expenses attributable solely to the Building and a pro rata portion of the Direct Expenses attributable to the Project as a whole, and shall not include Direct Expenses attributable solely to other buildings in the Project. Notwithstanding the foregoing, the parties agree that costs included in Direct Expenses that are related to the Project amenities center shall be allocated on a proportional basis to the entire currently planned Project, regardless of whether the entire planned Project has been or is completed.

4.4 **Calculation and Payment of Additional Rent** . Commencing on the Rent Commencement Date, Tenant shall pay to Landlord, in the manner set forth in Section 4.4.1 , and as Additional Rent, Tenant's Share of Direct Expenses for each Expense Year during the Lease Term.

4.4.1 **Statement of Actual Direct Expenses and Payment by Tenant** . Landlord shall give to Tenant within five (5) months following the end of each Expense Year, a statement (the " **Statement** ") that shall reasonably itemize the Direct Expenses incurred or accrued for such preceding Expense Year, and that shall indicate the amount of Tenant's Share of Direct Expenses. Upon receipt of the Statement for each Expense Year commencing or ending during the Lease Term, Tenant shall pay, with its next installment of Base Rent due that is at least thirty (30) days thereafter, the full amount of Tenant's Share of Direct Expenses for such Expense Year, less the amounts, if any, paid during such Expense Year as " **Estimated Direct Expenses** ," as that term is defined in Section 4.4.2 , below, and if Tenant paid more as Estimated Direct Expenses than the actual Tenant's Share of Direct Expenses, Tenant shall receive a credit in the amount of Tenant's overpayment against Rent next due under this Lease. The failure of Landlord to timely furnish the Statement for any Expense Year shall not prejudice Landlord or Tenant from enforcing its rights under this Article 4 . Even though the Lease Term has expired and Tenant has vacated the Premises, when the final determination is made of Tenant's Share of Direct Expenses for the Expense Year in which this Lease terminates, Tenant shall pay to Landlord such amount within thirty (30) days, and if Tenant paid more as Estimated Direct Expenses than the actual Tenant's Share of Direct Expenses, Landlord shall, within thirty (30) days, deliver a check payable to Tenant in the amount of the overpayment. The provisions of this Section 4.4.1 shall survive the expiration or earlier termination of the Lease Term. Notwithstanding the immediately preceding sentence, Tenant shall not be responsible for Tenant's Share of any Direct Expenses attributable to any Expense Year that is first billed to Tenant more than two (2) calendar years after the earlier of the expiration of the applicable Expense Year or the Lease Expiration Date, provided that in any event Tenant shall be responsible for Tenant's Share of Direct Expenses levied by any governmental authority or by any public utility companies at any time following the Lease Expiration Date that is attributable to any Expense Year (provided that Landlord delivers Tenant a bill for such amounts within two (2) years following Landlord's receipt of the bill therefor).

4.4.2 **Statement of Estimated Direct Expenses** . In addition, Landlord shall give Tenant a yearly expense estimate statement (the " **Estimate Statement** ") that shall set forth Landlord's reasonable estimate (the " **Estimate** ") of what the total amount of Direct Expenses for the then-current Expense Year shall be and the estimated Tenant's Share of Direct Expenses (the " **Estimated Direct Expenses** "). The failure of Landlord to timely furnish the Estimate Statement for any Expense Year shall not preclude Landlord from enforcing its rights to collect any Estimated Direct Expenses under this Article 4 , nor shall Landlord be prohibited from revising any Estimate Statement or Estimated Direct Expenses theretofore delivered to the extent necessary. Thereafter, Tenant shall pay, with its next installment of Base Rent due that is at least thirty (30) days thereafter, a fraction of the Estimated Direct Expenses for the then-current Expense Year (reduced by any amounts paid pursuant to the last sentence of this Section 4.4.2). Such fraction shall have as its numerator the number of months that have elapsed in such current Expense Year, including the month of such payment, and twelve (12) as its denominator. Until a new Estimate Statement is furnished (which Landlord shall have the right to deliver to Tenant at any time), Tenant shall pay monthly, with the monthly Base Rent installments, an amount equal to one-twelfth (1/12) of the total Estimated Direct Expenses set forth in the previous Estimate Statement delivered by Landlord to Tenant.

4.5 **Taxes and Other Charges for Which Tenant Is Directly Responsible** . Tenant shall be liable for and shall pay ten (10) days before delinquency, taxes levied against Tenant's equipment, furniture, fixtures and any other personal property located in or about the Premises. If any such taxes on Tenant's equipment, furniture, fixtures and any other personal property are levied against Landlord or Landlord's property or if the assessed value of Landlord's property is increased by the inclusion therein of a value placed upon such equipment, furniture, fixtures or any other personal property and if Landlord pays the taxes based upon such increased assessment, which Landlord

shall have the right to do regardless of the validity thereof but only under proper protest if requested by Tenant, Tenant shall upon demand repay to Landlord the taxes so levied against Landlord or the proportion of such taxes resulting from such increase in the assessment, as the case may be.

4.6 **Landlord's Books and Records** . Within one hundred eighty (180) days after receipt by Tenant of a Statement, if Tenant disputes the amount of Additional Rent set forth in the Statement, a member of Tenant's finance department, or an independent certified public accountant (which accountant is a member of a nationally recognized accounting firm and is not working on a contingency fee basis) (" **Tenant's Accountant** "), designated and paid for by Tenant, may, after reasonable notice to Landlord and at reasonable times, inspect Landlord's records with respect to the Statement at Landlord's offices, provided that there is no existing Event of Default and Tenant has paid all amounts required to be paid under the applicable Estimate Statement and Statement, as the case may be. In connection with such inspection, Tenant and Tenant's agents must agree in advance to follow Landlord's reasonable rules and procedures regarding inspections of Landlord's records, and shall execute a commercially reasonable confidentiality agreement regarding such inspection. Tenant's failure to dispute the amount of Additional Rent set forth in any Statement within one hundred eighty (180) days of Tenant's receipt of such Statement shall be deemed to be Tenant's approval of such Statement and Tenant, thereafter, waives the right or ability to dispute the amounts set forth in such Statement. If after such inspection, Tenant still disputes such Additional Rent, a determination as to the proper amount shall be made, at Tenant's expense, by an independent certified public accountant (the " **Accountant** ") selected by Landlord and subject to Tenant's reasonable approval; provided that if such Accountant determines that Direct Expenses were overstated by more than five percent (5%), then the cost of the Accountant and the cost of such determination shall be paid for by Landlord, and Landlord shall reimburse Tenant for the cost of Tenant's Accountant (provided that such cost shall be a reasonable market cost for such services). Tenant hereby acknowledges that Tenant's sole right to inspect Landlord's books and records and to contest the amount of Direct Expenses payable by Tenant shall be as set forth in this Section 4.6 , and (except as set forth in the next succeeding sentence) Tenant hereby waives any and all other rights pursuant to applicable law to inspect such books and records and/or to contest the amount of Direct Expenses payable by Tenant.

5. USE OF PREMISES.

5.1 **Permitted Use** . Tenant shall use the Premises solely for the Permitted Use set forth in Section 7 of the Summary and Tenant shall not use or permit the Premises or the Project to be used for any other purpose or purposes whatsoever without the prior written consent of Landlord, which may be withheld in Landlord's sole discretion.

5.2 **Prohibited Uses** . Tenant further covenants and agrees that Tenant shall not use or permit any person or persons to use, the Premises or any part thereof for any use or purpose in violation of the laws of the United States of America, the State of California, or the ordinances, regulations or requirements of the local municipal or county governing body or other lawful authorities having jurisdiction over the Project) including, without limitation, any such laws, ordinances, regulations or requirements relating to hazardous materials or substances, as those terms are defined by applicable laws now or hereafter in effect. Landlord shall have the right to impose reasonable, nondiscriminatory and customary rules and regulations regarding the use of the Project that do not unreasonably interfere with Tenant’s use of the Premises, as reasonably deemed necessary by Landlord with respect to the orderly operation of the Project, and Tenant shall comply with such reasonable rules and regulations. Tenant shall not do or permit anything to be done in or about the Premises that will in any way obstruct or interfere with the rights of other tenants or occupants of the Building, or injure or annoy them or use or allow the Premises to be used for any unlawful purpose, nor shall Tenant cause, maintain or permit any nuisance in, on or about the Premises. Tenant shall comply with, and Tenant's rights and obligations under the Lease and Tenant's use of the Premises shall be subject and subordinate to, all recorded easements, covenants, conditions, and restrictions now or hereafter affecting the Project, so long as the same do not unreasonably interfere with Tenant’s use of the Premises or parking rights or materially increase Tenant’s obligations or decrease Tenant’s rights under this Lease.

5.3 **Hazardous Materials** .

5.3.1 **Tenant's Obligations** .

5.3.1.1 **Prohibitions** . As a material inducement to Landlord to enter into this Lease with Tenant, Tenant has fully and accurately completed Landlord's Pre-Leasing Environmental Exposure Questionnaire (the " **Environmental Questionnaire** "), which is attached as **Exhibit E** . Tenant agrees that except for those chemicals or materials, and their approximate quantities listed on the Environmental Questionnaire (as the same may be updated from time to time as provided below) or any similar chemicals or materials used for substantially the same purposes in substitution thereof in compliance with applicable law, neither Tenant nor Tenant's employees, contractors and subcontractors of any tier, entities with a contractual relationship with Tenant (other than Landlord), or any entity acting as an agent or sub-agent of Tenant (collectively, " **Tenant's Agents** ") will produce, use, store or generate any "Hazardous Materials," as that term is defined below, on, under or about the Premises, nor cause any Hazardous Material to be brought upon, placed, stored, manufactured, generated, blended, handled, recycled, used or "Released," as that term is defined below, on, in, under or about the Premises. If any information provided to Landlord by Tenant on the Environmental Questionnaire, or otherwise relating to information concerning Hazardous Materials is intentionally false, incomplete, or misleading in any material respect, the same shall be deemed a default by Tenant under this Lease. Upon Landlord's request (but no more than once each Lease Year), or in the event of any material change in Tenant's use of Hazardous Materials in the Premises, Tenant shall deliver to Landlord an updated Environmental Questionnaire. Tenant shall notify Landlord prior to using any Hazardous Materials in the Premises not described on the initial Environmental Questionnaire, and such use shall be subject to all of the provisions of this Lease. Tenant shall not install or permit Tenant's Agents to install any underground storage tank on the Premises. For purposes of this Lease, " **Hazardous Materials** " means all flammable explosives, petroleum and petroleum products, waste oil, radon, radioactive materials, toxic pollutants, asbestos, polychlorinated biphenyls (" **PCBs** "), medical waste, chemicals known to cause cancer or reproductive toxicity, pollutants, contaminants, hazardous wastes, toxic substances or related materials, including without limitation any chemical, element, compound, mixture, solution, substance, object, waste or any combination thereof, that is or may be hazardous to human health, safety or to the environment due to its radioactivity, ignitability, corrosiveness, reactivity, explosiveness, toxicity, carcinogenicity, infectiousness or other harmful or potentially harmful properties or effects, or defined as, regulated as or included in, the definition of "hazardous substances," "hazardous wastes," "hazardous materials," or "toxic substances" under any Environmental Laws. For purposes of this Lease, " **Release** " or " **Released** " or " **Releases** " shall mean any release, deposit, discharge, emission, leaking, spilling, seeping, migrating, injecting, pumping, pouring, emptying, escaping, dumping, disposing, or other movement of Hazardous Materials into the environment. Landlord acknowledges that Tenant will be installing and using fume hoods in the Premises and that emissions of Hazardous Materials into the air in compliance with all Environmental Laws shall not be considered Releases.

5.3.1.2 **Notices to Landlord** . Tenant shall notify Landlord in writing as soon as possible but in no event later than five (5) days after (i) the occurrence of any actual, alleged or threatened Release of any Hazardous Material in, on, under, from, about or in the vicinity of the Premises (whether past or present), regardless of the source or quantity of any such Release, or (ii) Tenant becomes aware of any regulatory actions, inquiries, inspections, investigations, directives, or any cleanup, compliance, enforcement or abatement proceedings (including any threatened or contemplated investigations or proceedings) relating to or potentially affecting the Premises, or (iii) Tenant becomes aware of any claims by any person or entity relating to any Hazardous Materials in, on, under, from, about or in the vicinity of the Premises, whether relating to damage, contribution, cost recovery, compensation, loss or injury. Collectively, the matters set forth in clauses (i), (ii) and (iii) above are hereinafter referred to as " **Hazardous Materials Claims** ". Tenant shall promptly forward to Landlord copies of all orders, notices, permits, applications and other communications and reports in connection with any Hazardous Materials Claims. Additionally, Tenant shall promptly advise Landlord in writing of Tenant's discovery of any occurrence or condition on, in, under or about the Premises that could subject Tenant or Landlord to any liability, or restrictions on ownership, occupancy, transferability or use of the Premises under any "Environmental Laws," as that term is defined below. Tenant shall not enter into any legal proceeding or other action, settlement, consent decree or other compromise with respect to any Hazardous Materials Claims without first notifying Landlord of Tenant's intention to do so and affording Landlord the opportunity to join and participate, as a party if Landlord so elects, in such proceedings and in no event shall Tenant enter into any agreements that are binding on Landlord or the Premises without Landlord's prior written consent. Landlord shall have the right to appear at and participate in, any and all legal or other administrative proceedings concerning any Hazardous Materials Claim. For purposes of this Lease, " **Environmental Laws** " means

all applicable present and future laws relating to the protection of hu man health, safety, wildlife or the environment, including (i) all requirements pertaining to reporting, licensing, permitting, investigation and/or remediation of emissions, discharges, Releases, or threatened Releases of Hazardous Materials, whether solid, liquid, or gaseous in nature, into the air, surface water, groundwater, or land, or relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, or handling of Hazardous Materials; and (ii) all requirements pertaining to the health and safety of employees or the public. Environmental Laws include, but are not limited to, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 USC § 9601, et seq., the Hazardous Materials Transportation Authorization Act of 1994, 49 USC § 5101, et seq., the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, and Hazardous and Solid Waste Amendments of 1984, 42 USC § 6901, et seq., the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, 33 USC § 1251, et seq., the Clean Air Act of 1966, 42 USC § 7401, et seq., the Toxic Substances Control Act of 1976, 15 USC § 2601, et seq., the Safe Drinking Water Act of 1974, 42 USC §§ 300f through 300j, the Occupational Safety and Health Act of 1970, as amended, 29 USC § 651 et seq., the Oil Pollution Act of 1990, 33 USC § 2701 et seq., the Emergency Planning and Community Right-To-Know Act of 1986, 42 USC § 11001 et seq., the National Environmental Policy Act of 1969, 42 USC § 4321 et seq., the Federal Insecticide, Fungicide and Rodenticide Act of 1947, 7 USC § 136 et seq., California Carpenter-Presley-Tanner Hazardous Substance Account Act, California Health & Safety Code §§ 25300 et seq., Hazardous Materials Release Response Plans and Inventory Act, California Health & Safety Code, §§ 25500 et seq., Underground Storage of Hazardous Substances provisions, California Health & Safety Code, §§ 25280 et seq., California Hazardous Waste Control Law, California Health & Safety Code, §§ 25100 et seq., and any other state or local law counterparts, as amended, as such applicable laws, are in effect as of the Rent Commencement Date, or thereafter adopted, published, or promulgated.

5.3.1.3 **Releases of Hazardous Materials**. If any Release of any Hazardous Material in, on, under, from or about the Premises shall occur at any time during the Lease Term caused by Tenant or Tenant's Agents, in addition to notifying Landlord as specified above, Tenant, at its own sole cost and expense, shall (i) promptly and timely comply with any and all reporting requirements imposed pursuant to any and all Environmental Laws, (ii) provide a written certification to Landlord indicating that Tenant has complied with all applicable reporting requirements, (iii) take any and all necessary investigation, corrective and remedial action in accordance with any and all applicable Environmental Laws, utilizing an environmental consultant approved by Landlord, all in accordance with the provisions and requirements of this Section 5.3, including Section 5.3.4, and (iv) take any such additional investigative, remedial and corrective actions as Landlord shall in its reasonable discretion deem necessary such that the Premises are remediated to the condition existing prior to such Release.

5.3.1.4 **Indemnification**.

5.3.1.4.1 **In General**. Without limiting in any way Tenant's obligations under any other provision of this Lease, Tenant shall be solely responsible for and shall protect, defend, indemnify and hold the Landlord Parties harmless from and against any and all third party claims, judgments, losses, damages, costs, expenses, penalties, enforcement actions, taxes, fines, remedial actions, liabilities (including actual attorneys' fees, litigation, arbitration and administrative proceeding costs, expert and consultant fees and laboratory costs) including, without limitation, consequential damages and sums paid in settlement of claims, which arise during or after the Lease Term, whether foreseeable or unforeseeable, that arise during or after the Lease Term in whole or in part, foreseeable or unforeseeable, directly or indirectly arising out of or attributable to the Release of Hazardous Materials in, on, under or about the Premises by Tenant or Tenant's Agents.

5.3.1.4.2 **Limitations**. Notwithstanding anything in Section 5.3.1.4, above, to the contrary, Tenant's indemnity of Landlord as set forth in Section 5.3.1.4, above, shall not be applicable to claims based upon Hazardous Materials not Released by Tenant or Tenant's Agents.

5.3.1.4.3 **Landlord Indemnity**. Under no circumstance shall Tenant be liable for, and Landlord shall indemnify, defend, protect and hold harmless Tenant and Tenant's Agents from and against, all third party losses, costs, claims, liabilities and damages (including attorneys' and consultants' fees) arising out of any Hazardous Materials that exist in, on or about the Project as of the date hereof, or Hazardous Material Released by Landlord or any Landlord Parties. Landlord will provide Tenant with any Hazardous Material reports relating to the Building or Project that Landlord has in its possession, or control.

The provision of such reports shall be for informational purposes only, and Landlord does not make any representation or warranty as to the correctness or completeness of any such reports.

5.3.1.5 **Compliance with Environmental Laws** . Without limiting the generality of Tenant's obligation to comply with applicable laws as otherwise provided in this Lease, Tenant shall, at its sole cost and expense, comply with all Environmental Laws related to the use of Hazardous Materials by Tenant and Tenant's Agents. Tenant shall obtain and maintain any and all necessary permits, licenses, certifications and approvals appropriate or required for the use, handling, storage, and disposal of any Hazardous Materials used, stored, generated, transported, handled, blended, or recycled by Tenant on the Premises. Landlord shall have a continuing right, without obligation, to require Tenant to obtain, and to review and inspect any and all such permits, licenses, certifications and approvals, together with copies of any and all Hazardous Materials management plans and programs, any and all Hazardous Materials risk management and pollution prevention programs, and any and all Hazardous Materials emergency response and employee training programs respecting Tenant's use of Hazardous Materials. Upon request of Landlord (but no more than once every Lease Year, unless Landlord shall have reasonable grounds to believe that Tenant is not in compliance with its covenants under this Section 5.3), Tenant shall deliver to Landlord a narrative description explaining the nature and scope of Tenant's activities involving Hazardous Materials and certifying to Tenant's compliance with all Environmental Laws and the terms of this Lease.

5.3.2 **Assurance of Performance** .

5.3.2.1 **Environmental Assessments In General** . Landlord may, but shall not be required to, engage from time to time such contractors as Landlord determines to be appropriate (and which are reasonably acceptable to Tenant) to perform environmental assessments of a scope reasonably determined by Landlord (an " **Environmental Assessment** ") to ensure Tenant's compliance with the requirements of this Lease with respect to Hazardous Materials.

5.3.2.2 **Costs of Environmental Assessments** . All costs and expenses incurred by Landlord in connection with any such Environmental Assessment initially shall be paid by Landlord; provided that if any such Environmental Assessment shows that Tenant has failed to comply with the provisions of this Section 5.3 , then all of the costs and expenses of such Environmental Assessment shall be reimbursed by Tenant as Additional Rent within thirty (30) days after receipt of written demand therefor.

5.3.3 **Tenant's Obligations upon Surrender** . At the expiration or earlier termination of the Lease Term, Tenant, at Tenant's sole cost and expense, shall: (i) cause an Environmental Assessment of the Premises to be conducted in accordance with Section 15.3 ; (ii) cause all Hazardous Materials brought onto the Premises by Tenant or Tenant's Agents to be removed from the Premises and disposed of in accordance with all Environmental Laws and as necessary to allow the Premises to be used for the purposes allowed as of the Execution Date; and (iii) cause to be removed all containers installed or used by Tenant or Tenant's Agents to store any Hazardous Materials on the Premises, and cause to be repaired any damage to the Premises caused by such removal.

5.3.4 **Clean-up** .

5.3.4.1 **Environmental Reports; Clean-Up** . If any written report, including any report containing results of any Environmental Assessment (an " **Environmental Report** ") shall indicate (i) the presence of any Hazardous Materials as to which Tenant has a removal or remediation obligation under this Section 5.3 , and (ii) that as a result of same, the investigation, characterization, monitoring, assessment, repair, closure, remediation, removal, or other clean-up (the " **Clean-up** ") of any Hazardous Materials is required, Tenant shall prepare and submit to Landlord within thirty (30) days after receipt of the Environmental Report a comprehensive plan, subject to Landlord's written approval, specifying the actions to be taken by Tenant to perform the Clean-up so that the Premises are restored to the conditions required by this Lease. Upon Landlord's approval of the Clean-up plan, Tenant shall, at Tenant's sole cost and expense, without limitation on any rights and remedies of Landlord under this Lease, promptly implement such plan with a consultant reasonably acceptable to Landlord and proceed to Clean-Up Hazardous Materials in accordance with all applicable laws. If, within thirty (30) days after receiving a copy of such Environmental Report, Tenant fails either (a) to complete such Clean-up, or (b) with respect to any Clean-up that cannot be completed within such thirty-day period, fails to proceed with diligence to prepare the Clean-up plan and complete the Clean-up as promptly as practicable, then Landlord shall have the right, but not the obligation, and

without waiving any other rights under this Lease, to carry out any Clean-up recommended by the Environmental Report or required by any governmental authority having jurisdiction over the Premises, and recover all of the costs and expenses thereof from Tenant as Additional Rent, payable within thirty (30) days after receipt of written demand therefor.

5.3.4.2 **No Rent Abatement** . Tenant shall continue to pay all Rent due or accruing under this Lease during any Clean-up, and shall not be entitled to any reduction, offset or deferral of any Base Rent or Additional Rent due or accruing under this Lease during any such Clean-up.

5.3.4.3 **Surrender of Premises** . Tenant shall complete any Clean-up prior to surrender of the Premises upon the expiration or earlier termination of this Lease. Tenant shall obtain and deliver to Landlord a letter or other written determination from the overseeing governmental authority confirming that the Clean-up has been completed in accordance with all requirements of such governmental authority and that no further response action of any kind is required for the unrestricted use of the Premises (" **Closure Letter** "). Upon the expiration or earlier termination of this Lease, Tenant shall also be obligated to close all permits obtained in connection with Hazardous Materials used by Tenant or Tenant's Agents in accordance with applicable laws.

5.3.4.4 **Failure to Timely Clean-Up** . Should any Clean-up for which Tenant is responsible not be completed, or should Tenant not receive the Closure Letter and any governmental approvals required under Environmental Laws in conjunction with such Clean-up prior to the expiration or earlier termination of this Lease, then, commencing on the later of the termination of this Lease and three (3) business days after Landlord's delivery of notice of such failure and that it elects to treat such failure as a holdover, Tenant shall be liable to Landlord as a holdover tenant (as more particularly provided in Article 16) until Tenant has fully complied with its obligations under this Section 5.3 .

5.3.5 **Confidentiality** . Unless compelled to do so by applicable law, valid order of a court or judicial or administrative process, Tenant agrees that Tenant shall not disclose, discuss, disseminate or copy any information, data, findings, communications, conclusions and reports regarding the environmental condition of the Premises to any third party (other than Tenant's consultants, attorneys, property managers, employees, shareholders and potential and actual investors, lenders, business and merger partners, subtenants and assignees that have a need to know such information), including any governmental authority, without the prior written consent of Landlord. In the event Tenant reasonably believes that disclosure is compelled by applicable law, valid order of a court or judicial or administrative process, it shall, to the extent legally permitted, provide Landlord ten (10) days' advance notice of disclosure of confidential information so that Landlord may attempt to obtain a protective order. Tenant may additionally release such information to bona fide prospective purchasers or lenders, subject to any such parties' written agreement to be bound by the terms of this Section 5.3 .

5.3.6 **Landlord's Obligations** . Unless compelled to do so by applicable law, valid order of a court or judicial or administrative process, Landlord agrees that Landlord shall not disclose, discuss, disseminate or copy any information, data, findings, communications, conclusions or reports regarding the environmental condition of the Premises (including any information, data, findings, communications or conclusions included in any Environmental Questionnaire) to any third party (other than Landlord's consultants, attorneys, property managers, employees, shareholders and potential and actual investors, lenders, business and merger partners, that have a need to know such information), including any governmental authority, without the prior written consent of Tenant. In the event Landlord reasonably believes that disclosure is compelled by applicable law, valid order of a court or judicial or administrative process, it shall, to the extent legally permitted, provide Tenant ten (10) days' advance notice of disclosure of confidential information so that Tenant may attempt to obtain a protective order. Landlord may additionally release such information to bona fide prospective purchasers or lenders, subject to any such parties' written agreement to be bound by the terms of this Section 5.3 .

5.3.7 **Copies of Environmental Reports** . Within thirty (30) days of receipt thereof, Tenant shall provide Landlord with a copy of any and all environmental assessments, audits, studies and reports regarding Tenant's activities with respect to the Premises, or ground water beneath the Land, or the environmental condition or Clean-up thereof. Tenant shall be obligated to provide Landlord with a copy of such materials without regard to whether such materials are generated by Tenant or prepared for Tenant, or how Tenant comes into possession of such materials, unless doing so would result in a breach of any contractual obligation of Tenant to a third party.

5.3.8 **Signs, Response Plans, Etc** . Tenant shall be responsible for posting on the Premises any signs required under applicable Environmental Laws with respect to the use of Hazardous Materials by Tenant or Tenant's Agents. Tenant shall also complete and file any business response plans or inventories required by any applicable laws. Tenant shall concurrently file a copy of any such business response plan or inventory with Landlord.

5.3.9 **Survival** . Each covenant, agreement, representation, warranty and indemnification made by Tenant set forth in this Section 5.3 shall survive the expiration or earlier termination of this Lease and shall remain effective until all of Tenant's obligations under this Section 5.3 have been completely performed and satisfied.

6. SERVICES AND UTILITIES.

6.1 **In General** . Landlord will be responsible, at Tenant's sole cost and expense (subject to the terms of Section 4.2.4 , above), for making heating, ventilation and air-conditioning, electricity, and water available to the Premises. It is the Parties' expectation that all utilities to the Premises will be separately metered at the Premises and shall be paid directly by Tenant. Landlord shall not provide janitorial, telephone services or interior security services for the Premises. Tenant shall be solely responsible for performing all janitorial services and other cleaning of the Premises, all in compliance with applicable laws. The janitorial and cleaning of the Premises shall be adequate to maintain the Premises in a manner consistent with First Class Life Sciences Projects.

Tenant shall cooperate fully with Landlord at all times and abide by all reasonable regulations and requirements that Landlord may reasonably prescribe for the proper functioning and protection of the HVAC, electrical, mechanical and plumbing systems. Provided that Landlord provides and maintains and keeps in continuous service utility connections to the Project, including electricity, gas, water and sewage connections, Landlord shall have no obligation to provide any services or utilities to the Building, including heating, ventilation and air-conditioning, electricity, water, telephone, janitorial and interior Building security services, except as set forth in this Section 6.1 .

6.2 **Tenant Payment of Utilities Costs** . It is the Parties' expectation that all utilities (including electricity, gas, sewer and water) will be separately metered or sub-metered to the Premises and will be paid directly by Tenant. After the Rent Commencement Date such utilities shall either be contracted for and paid directly by Tenant to the applicable utility provider. If, after the Rent Commencement Date, any utilities to the Building are not separately metered to the Premises, then Tenant shall pay to Landlord, within thirty (30) days after billing, an equitable portion of the Building utility costs, based on Tenant's proportionate use thereof. In connection with the foregoing, Landlord shall install separate meters on the Building Systems as a part of Landlord's construction of the Base Building, and Tenant shall install separate meters on the systems installed in the Premises as part of the Tenant Improvements pursuant to the Work Letter.

6.3 **Interruption of Use** . Tenant agrees that Landlord shall not be liable for damages, by abatement of Rent or otherwise, for failure to furnish or delay in furnishing any service or utility (including telephone and telecommunication services, UPS services, or other laboratory services or utilities), or for any diminution in the quality or quantity thereof, when such failure or delay or diminution is occasioned, in whole or in part, by breakage, repairs, replacements, or improvements, by any strike, lockout or other labor trouble, by inability to secure electricity, gas, water, or other fuel at the Building or Project after reasonable effort to do so, by any riot or other dangerous condition, emergency, accident or casualty whatsoever, by act or default of Tenant or other parties, or by any other cause; and such failures or delays or diminution shall never be deemed to constitute an eviction or disturbance of Tenant's use and possession of the Premises or relieve Tenant from paying Rent or performing any of its obligations under this Lease, except as set forth below. Notwithstanding the foregoing, Landlord shall be liable for damages to the extent caused by the negligence or willful misconduct of Landlord or the Landlord Parties, provided that Landlord shall not be liable under any circumstances for injury to, or interference with, Tenant's business, including loss of profits, however occurring, through or in connection with or incidental to a failure to furnish any of the services or utilities as set forth in this Article 6 .

6.4 **Energy Performance Disclosure Information** . Tenant hereby acknowledges that Landlord may be required to disclose certain information concerning the energy performance of the Building pursuant to California Public Resources Code Section 25402.10 and the regulations adopted pursuant thereto (collectively the " **Energy Disclosure Requirements** "). Tenant hereby acknowledges prior receipt of the Data Verification Checklist, as defined

in the Energy Disclosure Requirements (the " **Energy Disclosure Information** "), and agrees that Landlord has timely complied in full with Landlord's obligations under the Energy Disclosure Requirements. Tenant acknowledges and agrees that (i) Landlord makes no representation or warranty regarding the energy performance of the Building or the accuracy or completeness of the Energy Disclosure Information, (ii) the Energy Disclosure Information is for the current occupancy and use of the Building and that the energy performance of the Building may vary depending on future occupancy and/or use of the Building, and (iii) Landlord shall have no liability to Tenant for any errors or omissions in the Energy Disclosure Information. If and to the extent not prohibited by applicable laws, Tenant hereby waives any right Tenant may have to receive the Energy Disclosure Information, including any right Tenant may have to terminate this Lease as a result of Landlord's failure to disclose such information. Further, Tenant hereby releases Landlord from any and all losses, costs, damages, expenses and/or liabilities relating to, arising out of and/or resulting from the Energy Disclosure Requirements, including any liabilities arising as a result of Landlord's failure to disclose the Energy Disclosure Information to Tenant prior to the execution of this Lease. Tenant's acknowledgment of the AS-IS condition of the Premises pursuant to the terms of this Lease shall be deemed to include the energy performance of the Building. Tenant further acknowledges that pursuant to the Energy Disclosure Requirements, Landlord may be required in the future to disclose information concerning Tenant's energy usage to certain third parties, including prospective purchasers, lenders and tenants of the Building (the " **Tenant Energy Use Disclosure** "). Tenant hereby (A) consents to all such Tenant Energy Use Disclosures, and (B) acknowledges that Landlord shall not be required to notify Tenant of any Tenant Energy Use Disclosure. Further, Tenant hereby releases Landlord from any and all losses, costs, damages, expenses and liabilities relating to, arising out of and/or resulting from any Tenant Energy Use Disclosure. The terms of this Section 6.3 shall survive the expiration or earlier termination of this Lease.

7. REPAIRS .

7.1 **Tenant Repair Obligations** . Tenant shall, throughout the Term, at its sole cost and expense, maintain, repair, replace and improve as required, the Premises and Building and every part thereof in a good standard of maintenance, repair and replacement as required, and in good and sanitary condition, all in accordance with the standards of First Class Life Sciences Projects, except for Landlord Repair Obligations, whether or not such maintenance, repair, replacement or improvement is required in order to comply with applicable Laws (" **Tenant's Repair Obligations** "), including the following: (1) glass, windows, window frames, window casements (including the repairing, resealing, cleaning and replacing of both interior and exterior windows) and skylights; (2) interior and exterior doors, door frames and door closers; (3) interior lighting (including light bulbs and ballasts); (4) the plumbing, sewer, drainage, electrical, fire protection, elevator, escalator, life safety and security systems and equipment, existing heating, ventilation and air-conditioning systems, and all other mechanical, electrical and communications systems and equipment (collectively, the " **Building Systems** "), including (i) any specialty or supplemental Building Systems installed by or for Tenant and (ii) all electrical facilities and equipment, including lighting fixtures, lamps, fans and any exhaust equipment and systems, electrical motors and all other appliances and equipment of every kind and nature located in, upon or about the Premises; (5) all communications systems serving the Premises; (6) all of Tenant's security systems in or about or serving the Premises; (7) Tenant's signage; (8) interior demising walls and partitions (including painting and wall coverings), equipment, floors, and any roll-up doors, ramps and dock equipment; and (9) the non-structural portions of the roof of the Building, including the roof membrane and coverings. Tenant shall additionally be responsible, at Tenant's sole cost and expense, to furnish all expendables, including light bulbs, paper goods and soaps, used in the Premises, and, to the extent that Landlord notifies Tenant in writing of its intention to no longer arrange for such monitoring, cause the fire alarm systems serving the Premises to be monitored by a monitoring or protective services firm approved by Landlord in writing.

7.2 **Service Contracts** . All Building Systems, including HVAC, elevators, main electrical, plumbing and fire/life-safety systems, shall be maintained, repaired and replaced by Tenant (i) in a commercially reasonable first-class condition, (ii) in accordance with any applicable manufacturer specifications relating to any particular component of such Building Systems, (iii) in accordance with applicable Laws. Tenant shall contract with a qualified, experienced professional third party service companies (a " **Service Contract** "). Tenant shall regularly, in accordance with commercially reasonable standards, generate and maintain preventive maintenance records relating to each Building's mechanical and main electrical systems, including life safety, elevators and the central plant ("Preventative Maintenance Records"). In addition, upon Landlord's request, Tenant shall deliver a copy of all current Service Contracts to Landlord and/or a copy of the Preventative Maintenance Records.

7.3 **Landlord's Right to Perform Tenant's Repair Obligations** . Tenant shall notify Landlord in writing at least thirty (30) days prior to performing any material Tenant's Repair Obligations, including any Tenant's Repair Obligation that affects the Building Systems or are reasonably anticipated to cost more than $100,000.00. Upon receipt of such notice from Tenant, Landlord shall have the right to either (i) perform such material Tenant's Repair Obligation by delivering notice of such election to Tenant within thirty (30) days following receipt of Tenant's notice, and Tenant shall pay Landlord the reasonable and documented cost thereof (including Landlord's reasonable supervision fee) within thirty (30) days after receipt of an invoice therefor, or (ii) require Tenant to perform such Tenant's Repair Obligation at Tenant's sole cost and expense. If Tenant fails to perform any Tenant's Repair Obligation within a reasonable time period, as reasonably determined by Landlord, then Landlord may, but need not, following delivery of notice to Tenant of such election, make such Tenant Repair Obligation, and Tenant shall pay Landlord the cost thereof, (including Landlord's reasonable supervision fee) within thirty (30) days after receipt of an invoice therefor.

7.4 **Landlord Repair Obligations** . Landlord shall be responsible for repairs to the exterior walls, foundation and roof of the Building, the structural portions of the floors of the Building, and for the maintenance of the load bearing and exterior walls of the Building, including any painting, sealing, patching and waterproofing of such walls (the " **Landlord Repair Obligation** "); provided, however, that if such repairs or maintenance are due to the negligence or willful misconduct of Tenant, Landlord shall nevertheless make such repairs or perform such maintenance at Tenant's expense, or, if covered by Landlord's insurance, Tenant shall only be obligated to pay any deductible in connection therewith.

8. ADDITIONS AND ALTERATIONS.

8.1 **Landlord's Consent to Alterations** . Tenant may not make any improvements, alterations, additions or changes to the Premises or any mechanical, plumbing or HVAC facilities or systems pertaining to the Premises (collectively, the " **Alterations** ") without first procuring the prior written consent of Landlord to such Alterations, which consent shall be requested by Tenant not less than ten (10) business days prior to the commencement thereof, and which consent shall not be unreasonably withheld, conditioned or delayed by Landlord, provided it shall be deemed reasonable for Landlord to withhold its consent to any Alteration that adversely affects the structural portions or the systems or equipment of the Building or is visible from the exterior of the Building. Notwithstanding the foregoing, Tenant shall be permitted to make Alterations following ten (10) business days' notice to Landlord (as to Alterations costing more than $10,000 only), but without Landlord's prior consent, to the extent that such Alterations (i) do not affect the building systems or equipment (other than minor changes such as adding or relocating electrical outlets and thermostats), (ii) are not visible from the exterior of the Building, and (iii) cost less than $100,000.00 for a particular job of work. The construction of the Tenant Improvements to the Premises shall be governed by the terms of the Tenant Work Letter and not the terms of this Article 8 .

8.2 **Manner of Construction** . Landlord may impose, as a condition of its consent to any and all Alterations or repairs of the Premises or about the Premises, such requirements as Landlord in its reasonable discretion may deem desirable, including, but not limited to, the requirement that upon Landlord's request, Tenant shall, at Tenant's expense, remove such Alterations upon the expiration or any early termination of the Lease Term; provided, however, that Landlord may not require Tenant to remove at the expiration or any early termination of this Lease any Tenant Improvements shown in the Approved Schematic Plans or any Alternations consistent with the improvements shown in the Approved Schematic Plan, or any Alterations which are otherwise consistent with typical tenant improvements in the biotechnology or pharmaceutical industries. Tenant shall construct such Alterations and perform such repairs in a good and workmanlike manner, in conformance with any and all applicable federal, state, county or municipal laws, rules and regulations and pursuant to a valid building permit, issued by the city in which the Building is located (or other applicable governmental authority). Tenant shall not use (and upon notice from Landlord shall cease using) contractors, services, workmen, labor, materials or equipment that, in Landlord's reasonable judgment, would disturb labor harmony with the workforce or trades engaged in performing other work, labor or services in or about the Building or the Common Areas. Upon completion of any Alterations, Tenant shall deliver to Landlord final lien waivers from all contractors, subcontractors and materialmen who performed such work. In addition to Tenant's obligations under Article 9 , upon completion of any Alterations, Tenant agrees to cause a Notice of Completion to be recorded in the office of the Recorder of the County of San Mateo in accordance with Section 3093 of the Civil Code of the State of California or any successor statute, and Tenant shall deliver to the Project construction manager a

reproducible copy of the " **as built** " drawings of the Alterations as well as all permits, approvals and other documents issued by any governmental agency in connection with the Alterations.

8.3 **Payment for Improvements** . In connection with any Alterations that affect the Building systems (other than minor changes such as adding or relocating electrical outlets and thermostats), or that have a cost in excess of $100,000, Tenant shall reimburse Landlord for Landlord's reasonable, actual, out-of-pocket costs and expenses actually incurred in connection with Landlord's review of such work.

8.4 **Construction Insurance** . In addition to the requirements of Article 10 , in the event that Tenant makes any Alterations, prior to the commencement of such Alterations, Tenant shall provide Landlord with evidence that Tenant or Tenant's contractor carries " **Builder's All Risk** " insurance (to the extent that the cost of such work shall exceed $50,000) in an amount approved by Landlord covering the construction of such Alterations, and such other insurance as Landlord may reasonably require, it being understood and agreed that all of such Alterations shall be insured by Landlord pursuant to Article 10 immediately upon completion thereof. In addition, Tenant's contractors and subcontractors shall be required to carry Commercial General Liability Insurance in an amount approved by Landlord and otherwise in accordance with the requirements of Article 10 . In connection with Alterations with a cost in excess of $250,000, Landlord may, in its reasonable discretion, require Tenant to obtain a lien and completion bond or some alternate form of security satisfactory to Landlord in an amount sufficient to ensure the lien-free completion of such Alterations and naming Landlord as a co-obligee.

8.5 **Landlord's Property** . All Alterations, improvements, fixtures, equipment and/or appurtenances that may be installed or placed in or about the Premises, from time to time, shall be at the sole cost of Tenant and all Alterations and improvements, shall be and become the property of Landlord and remain in place at the Premises following the expiration or earlier termination of this Lease. Notwithstanding the foregoing, Landlord may, by written notice to Tenant given at the time it consents to an Alteration, require Tenant, at Tenant's expense, to remove any Alterations within the Premises and to repair any damage to the Premises and Building caused by such removal; provided, however, that Landlord may not require Tenant to remove any Tenant Improvements shown in the Approved Schematic Plans or any Alternations consistent with the improvements shown in the Approved Schematic Plan, or any Alterations which are otherwise consistent with typical tenant improvements in the biotechnology or pharmaceutical industries. If Tenant fails to complete such removal and/or to repair any damage caused by the removal of any Alterations, Landlord may do so and may charge the cost thereof to Tenant. Tenant hereby protects, defends, indemnifies and holds Landlord harmless from any liability, cost, obligation, expense or claim of lien in any manner relating to the installation, placement, removal or financing of any such Alterations, improvements, fixtures and/or equipment in, on or about the Premises, which obligations of Tenant shall survive the expiration or earlier termination of this Lease. Notwithstanding the foregoing, except to the extent the same are paid for by the Tenant Improvement Allowance, the items set forth in **Exhibit F** attached hereto (the " **Tenant's Property** ") shall at all times be and remain Tenant's property. **Exhibit F** may be updated from time to time by agreement of the Parties. Tenant may remove the Tenant's Property from the Premises at any time, provided that Tenant repairs all damage caused by such removal. Landlord shall have no lien or other interest in the Tenant's Property.

9. COVENANT AGAINST LIENS. Tenant shall keep the Project and Premises free from any liens or encumbrances arising out of the work performed, materials furnished or obligations incurred by or on behalf of Tenant, and shall protect, defend, indemnify and hold Landlord harmless from and against any third party claims, liabilities, judgments or costs (including reasonable attorneys' fees and costs) arising out of same or in connection therewith. Except as to Alterations as to which no notice is required under the second sentence of Section 8.1 , Tenant shall give Landlord notice at least ten (10) business days prior to the commencement of any such work on the Premises (or such additional time as may be necessary under applicable laws) to afford Landlord the opportunity of posting and recording appropriate notices of non-responsibility (to the extent applicable pursuant to then applicable laws). Tenant shall remove any such lien or encumbrance by bond or otherwise within ten (10) business days after notice by Landlord, and if Tenant shall fail to do so, Landlord may pay the amount necessary to remove such lien or encumbrance, without being responsible for investigating the validity thereof.

10. INSURANCE.

10.1 **Indemnification and Waiver** . Except as provided in Section 10.5 or to the extent due to the negligence, willful misconduct or violation of this Lease by Landlord or the Landlord Parties, Tenant hereby assumes

all risk of damage to property in, upon or about the Premises from any cause whatsoever (including, but not limited to, any personal injuries resulting from a slip and fall in, upon or about the Premises) and agrees that Landlord, its partners, subpartners and their respective officers, agents, servants, employees, and independent contractors (collectively, " **Landlord Parties** ") shall not be liable for, and are hereby released from any responsibility for, any damage either to person or property or resulting from the loss of use thereof, which damage is sustained by Tenant or by other persons claiming through Tenant. Tenant shall indemnify, defend, protect, and hold harmless the Landlord Parties from any and all loss, cost, damage, expense and liability (including without limitation court costs and reasonable attorneys' fees) incurred in connection with or arising from any cause in, on or about the Premises (including, but not limited to, a slip and fall), any acts, omissions or negligence of Tenant or of any person claiming by, through or under Tenant, or of the contractors, agents, servants, employees, invitees, guests or licensees of Tenant or any such person, in, on or about the Project or any breach of the terms of this Lease, either prior to, during, or after the expiration of the Lease Term, provided that the terms of the foregoing indemnity and release shall not apply to the negligence or willful misconduct of Landlord or its agents, employees, contractors, licensees or invitees, or Landlord's violation of this Lease. Should Landlord be named as a defendant in any suit brought against Tenant in connection with or arising out of Tenant's occupancy of the Premises, Tenant shall pay to Landlord its costs and expenses incurred in such suit, including its actual professional fees such as reasonable appraisers', accountants' and attorneys' fees. Notwithstanding anything to the contrary in this Lease, Landlord shall not be released or indemnified from, and shall indemnify, defend, protect and hold harmless Tenant, its agents and employees, from, all losses, damages, liabilities, demands, claims, actions, attorneys' fees, costs and expenses arising from the negligence or willful misconduct of Landlord or its agents, contractors, licensees or invitees, or a violation of Landlord's obligations or representations under this Lease. The provisions of this Section 10.1 shall survive the expiration or sooner termination of this Lease with respect to any claims or liability arising in connection with any event occurring prior to such expiration or termination.

10.2 **Tenant's Compliance With Landlord's Property Insurance** . Landlord shall insure the Building, Tenant Improvements and any Alterations during the Lease Term against loss or damage under an "all risk" property insurance policy on a full replacement cost basis, with commercially reasonable deductibles. Such coverage shall be in such amounts, from such companies, and on such other terms and conditions, as Landlord may from time to time reasonably determine. Additionally, at the option of Landlord, such insurance coverage may include the risks of earthquakes and/or flood damage and additional hazards, a rental loss endorsement and one or more loss payee endorsements in favor of the holders of any mortgages or deeds of trust encumbering the interest of Landlord in the Building or the ground or underlying lessors of the Building, or any portion thereof. The costs of such insurance shall be included in Operating Expenses, subject to the terms of Section 4.2.4 . Tenant shall, at Tenant's expense, comply with all insurance company requirements pertaining to the use of the Premises. If Tenant's conduct or use of the Premises causes any increase in the premium for such insurance policies then Tenant shall reimburse Landlord for any such increase. Tenant, at Tenant's expense, shall comply with all rules, orders, regulations or requirements of the American Insurance Association (formerly the National Board of Fire Underwriters) and with any similar body. Notwithstanding anything to the contrary in this Lease, Tenant shall not be required to comply with or cause the Premises to comply with any laws, rules, regulations or insurance requirements requiring the construction of alterations unless such compliance is necessitated solely due to Tenant's particular use of the Premises. Landlord shall also keep in full force and effect a policy of Commercial General Liability Insurance protecting Landlord against claims for bodily injury and property damage arising out of Landlord's ownership, use, occupancy or maintenance of the Building and the Common Areas. Such insurance shall be on an occurrence basis and shall include limits of liability not less than those required of Tenant under Section 10.3 .

10.3 **Tenant's Insurance**. Tenant shall maintain the following coverages in the following amounts during the Lease Term (except Tenant shall carry the insurance described in Section 10.3.1 during any period in which it enters the Premises).

10.3.1 Commercial General Liability Insurance on an occurrence form covering the insured against claims of bodily injury and property damage (including loss of use thereof) arising out of Tenant's operations, and contractual liabilities including a contractual coverage for limits of liability (which limits may be met together with umbrella liability insurance) of not less than:

Bodily Injury and	$4,000,000 each occurrence
Property Damage Liability	$4,000,000 annual aggregate
Personal Injury Liability	$4,000,000 annual aggregate

10.3.2 Property Insurance covering all office furniture, business and trade fixtures, office and lab equipment, free-standing cabinet work, movable partitions, merchandise and all other items of Tenant's property on the Premises installed by, for, or at the expense of Tenant. Such insurance shall be written on an " **all risks** " of physical loss or damage basis, for the full replacement cost value (subject to reasonable deductible amounts) new without deduction for depreciation of the covered items and in amounts that meet any co-insurance clauses of the policies of insurance and shall include coverage for damage or other loss caused by fire or other peril including, but not limited to, vandalism and malicious mischief, theft, water damage (excluding flood), including sprinkler leakage, bursting or stoppage of pipes, and explosion, and providing business interruption coverage for a period of ninety (90) days.

10.3.3 Business Income Interruption for ninety (90) days plus Extra Expense insurance in such amounts as will reimburse Tenant for actual direct or indirect loss of earnings attributable to the risks outlined in Section 10.3.2 above.

10.3.4 Worker's Compensation and Employer's Liability or other similar insurance pursuant to all applicable state and local statutes and regulations. The policy shall include a waiver of subrogation in favor of Landlord, its employees, Lenders and any property manager or partners.

10.4 **Form of Policies**. The minimum limits of policies of insurance required of Tenant under this Lease shall in no event limit the liability of Tenant under this Lease. Such insurance shall (i) name Landlord, its subsidiaries and affiliates, its property manager (if any) and any other party the Landlord so specifies, as an additional insured on the liability insurance, including Landlord's managing agent, if any; (ii) be issued by an insurance company having a rating of not less than A-:VII in Best's Insurance Guide or that is otherwise acceptable to Landlord and authorized to do business in the State of California; and (iv) be primary insurance as to all claims thereunder and provide that any insurance carried by Landlord is excess and is non-contributing with any insurance required of Tenant. Tenant shall not cause said insurance to be canceled unless thirty (30) days' prior written notice shall have been given to Landlord and any mortgagee of Landlord (unless such cancellation is the result of non-payment of premiums, in which case note less than five (5) days' notice shall be provided). Tenant shall deliver said policy or policies or certificates thereof to Landlord on or before the Rent Commencement Date and at least ten (10) days before the expiration dates thereof. In the event Tenant shall fail to procure such insurance, or to deliver such policies or certificate, Landlord may, at its option, procure such policies for the account of Tenant, and the cost thereof shall be paid to Landlord within five (5) days after delivery to Tenant of bills therefor.

10.5 **Subrogation**. Landlord and Tenant hereby agree to look solely to, and seek recovery only from, their respective insurance carriers in the event of a property or business interruption loss to the extent that such coverage is agreed to be provided hereunder, notwithstanding the negligence of either Party. Notwithstanding anything to the contrary in this Lease, the Parties each hereby waive all rights and claims against each other for such losses, and waive all rights of subrogation of their respective insurers. The Parties agree that their respective insurance policies do now, or shall, contain the waiver of subrogation.

10.6 **Additional Insurance Obligations** . Tenant shall carry and maintain during the entire Lease Term, at Tenant's sole cost and expense, increased amounts of the insurance required to be carried by Tenant pursuant to this Article 10 and such other reasonable types of insurance coverage and in such reasonable amounts covering the Premises and Tenant's operations therein, as may be reasonably requested by Landlord or Landlord's lender, but in no event in excess of the amounts and types of insurance then being required by landlords of buildings comparable to and in the vicinity of the Building.

10.7 **Construction Period** : The term "Construction Period" shall mean the period from the Effective Date to the date that Landlord completes construction of the Landlord's Work, and Common Areas, regardless of the occurrence of any Tenant Delay and without regard to the effect of any provision of this Lease pursuant to which the Premises are deemed to be Ready for Occupancy in advance of its actual occurrence. Notwithstanding any provision of this Lease to the contrary, during the Construction Period only, the following provisions shall be applicable:

10.7.1 with respect to any indemnity obligation of Tenant arising at any time during the Construction Period only, (A) the term "Landlord Parties" shall mean and shall be limited to HCP Oyster Point III LLC, a Delaware limited liability company (or any entity that that succeeds to HCP Oyster Point III LLC's interest as Landlord under the Lease) and shall not include any other person or entity; provided, however, that Landlord may include in any claim owed by Tenant to it any amount which Landlord shall pay or be obligated to indemnify any other person or entity, and (B) any indemnity obligation shall be limited to losses caused by, or arising as a result of any act or failure to act of, Tenant or Tenant's employees, agents or contractors; and

10.7.2 during the Construction Period only, Tenant's liability under this Lease for Tenant's actions or failures to act under the Lease during the Construction Period, including, without limitation, (A) Tenant's indemnity obligations, plus (B) Base Rent and Additional Rent (as a consequence of Tenant Delay), plus (C) any and all other costs payable to Landlord, including Base Rent for the first full month, or otherwise payable by Tenant under this Lease, which amount shall calculated to include (i) the accreted value of any payments previously made by Tenant plus (ii) the present value of the maximum amount that Tenant could be required to pay as of that point in time (whether or not construction is completed) discounted at Tenant's incremental borrowing rate used to classify the Lease under ASC 840 (FAS 13), shall be limited to 89.9% of Landlord's Project Costs determined as of the date of Landlord's claim for such amount owed by Tenant. As used herein, " **Landlord's Project Costs** " shall mean the amount capitalized in the Project by Landlord in accordance with GAAP, plus other costs related to the Project (including related site improvements and other Project costs) paid by Landlord to third parties other than lenders or owners of Landlord (excluding land acquisition costs, but including land carrying costs, such as interest or ground rent incurred during the Construction Period, and including all costs incurred by Landlord in connection with the development and construction of the Project); and

10.7.3 the provisions of Section 21.1(H) of the Lease shall not apply during the Construction Period.

10.7.4 For the avoidance of doubt, Landlord and Tenant agree that:

10.7.4.1 no claim by Landlord for Tenant's repudiation of this Lease at any time shall be limited under this section; and

10.7.4.2 following the end of the Construction Period, the terms of this Section 10.7 shall be of no further force or effect.

11. DAMAGE AND DESTRUCTION.

11.1 **Repair of Damage to Premises by Landlord** . Tenant shall promptly notify Landlord of any damage to the Premises resulting from fire or any other casualty. If the Premises or any Common Areas serving or providing access to the Premises shall be damaged by fire or other casualty, Landlord shall use reasonable efforts to notify Tenant within sixty (60) days after the date of discovery of the damage whether Landlord will restore the Premises and Common Areas and, in Landlord's reasonable judgment, the time period within which the restoration can be completed. If Landlord elects to restore Premises and Common Areas, Landlord shall promptly and diligently,

subject to reasonable delays for insurance adjustment or other matters beyond Landlord's reasonable control, and subject to all other terms of this Article 11, restore the Premises and such Common Areas. Such restoration shall be to substantially the same condition of the Premises and the Common Areas prior to the casualty, except for modifications required by zoning and building codes and other laws or any other modifications to the Common Areas deemed desirable by Landlord, which are consistent with the character of the Project, provided that access to the Premises shall not be materially impaired and Landlord's repair shall include the Tenant Improvements and Tenant's Alterations installed in the Premises. Landlord shall not be liable for any inconvenience or annoyance to Tenant or its visitors, or injury to Tenant's business resulting in any way from such damage or the repair thereof; provided however, that if such fire or other casualty shall have damaged the Premises or Common Areas necessary to Tenant's occupancy, and the damaged portions of the Premises are not occupied by Tenant as a result thereof, then during the time and to the extent the Premises are unfit for occupancy, the Rent shall be abated in proportion to the ratio that the amount of rentable square feet of the Premises which is unfit for occupancy for the purposes permitted under this Lease bears to the total rentable square feet of the Premises.

11.2 **Landlord's Option to Repair**. Notwithstanding the terms of Section 11.1, Landlord may elect not to rebuild and/or restore the Premises, Building and/or Project, and instead terminate this Lease, by notifying Tenant in writing of such termination within sixty (60) days after the date of discovery of the damage, such notice to include a termination date giving Tenant sixty (60) days to vacate the Premises, but Landlord may so elect only if the Building shall be damaged by fire or other casualty or cause, and one or more of the following conditions is present: (i) in Landlord's reasonable judgment, repairs cannot reasonably be completed within one (1) year after the date of discovery of the damage (when such repairs are made without the payment of overtime or other premiums); (ii) the damage is due to a risk that Landlord is not required to insure under this Lease, and the cost of restoration exceed five percent (5%) of the replacement cost of the Building (unless Tenant agrees to pay any uninsured amount in excess of such five percent (5%)); or (iii) the damage occurs during the last twelve (12) months of the Lease Term and will take more than sixty (60) days to restore.

11.3 **Tenant's Option to Terminate.** Notwithstanding anything to the contrary in Section 11.1 or 11.2, if (a) the damage occurs during the last twelve (12) months of the Lease Term, and will take more than sixty (60) days to restore, or (b) in the reasonable judgment of Landlord, the repairs cannot be completed within eight (8) months days after the date of discovery of the damage (or are not in fact completed within nine (9) months after the date of discovery of the damage), Tenant may elect, no earlier than sixty (60) days after the date of the damage and not later than ninety (90) days after the date of such damage, or within thirty (30) days after such repairs are not timely completed, to terminate this Lease by written notice to Landlord effective as of the date specified in the notice, which date shall not be less than thirty (30) days nor more than sixty (60) days after the date such notice is given by Tenant.

11.4 **Waiver of Statutory Provisions**. The provisions of this Lease, including this Article 11, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, the Building or the Project, and any statute or regulation of the State of California, including, Sections 1932(2) and 1933(4) of the California Civil Code, with respect to any rights or obligations concerning damage or destruction in the absence of an express agreement between the Parties, and any other statute or regulation, now or hereafter in effect, shall have no application to this Lease or any damage or destruction to all or any part of the Premises, the Building or the Project.

12. NONWAIVER. No provision of this Lease shall be deemed waived by either Party unless expressly waived in a writing signed thereby. The waiver by either Party of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of any subsequent breach of same or any other term, covenant or condition herein contained. The subsequent acceptance of Rent hereunder by Landlord shall not be deemed to be a waiver of any preceding breach by Tenant of any term, covenant or condition of this Lease, other than the failure of Tenant to pay the particular Rent so accepted, regardless of Landlord's knowledge of such preceding breach at the time of acceptance of such Rent. No acceptance of a lesser amount than the Rent herein stipulated shall be deemed a waiver of Landlord's right to receive the full amount due, nor shall any endorsement or statement on any check or payment or any letter accompanying such check or payment be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the full amount due. No receipt of monies by Landlord from Tenant after the termination of this Lease shall in any way alter the length of the Lease Term or of Tenant's right of possession hereunder, or after the giving of any notice shall reinstate, continue or extend the Lease Term or affect any notice given Tenant prior to the receipt of such monies, it being agreed that after the service

of notice or the commencement of a suit, or after final judgment for possession of the Premises, Landlord may receive and collect any Rent due, and the payment of said Rent shall not waive or affect said notice, suit or judgment.

13. CONDEMNATION. If the whole or any part of the Premises shall be taken by power of eminent domain or condemned by any competent authority for any public or quasi-public use or purpose, or if any adjacent property or street shall be so taken or condemned, or reconfigured or vacated by such authority in such manner as to require the use or reconstruction of any part of the Premises, or if Landlord shall grant a deed or other instrument in lieu of such taking by eminent domain or condemnation, Landlord shall have the option to terminate this Lease effective as of the date possession is required to be surrendered to the authority. Tenant shall not because of such taking assert any claim against Landlord or the authority for any compensation because of such taking and Landlord shall be entitled to the entire award or payment in connection therewith, except that Tenant shall have the right to file any separate claim available to Tenant for any taking of Tenant's personal property and fixtures belonging to Tenant and removable by Tenant upon expiration of the Lease Term pursuant to the terms of this Lease, for moving expenses, for the unamortized value of any improvements paid for by Tenant and for the Lease "bonus value", so long as such claims are payable separately to Tenant. All Rent shall be apportioned as of the date of such termination. If any part of the Premises shall be taken, and this Lease shall not be so terminated, the Rent shall be proportionately abated. Tenant hereby waives any and all rights it might otherwise have pursuant to Section 1265.130 of The California Code of Civil Procedure. Notwithstanding anything to the contrary contained in this Article 13 , in the event of a temporary taking of all or any portion of the Premises for a period of one hundred and eighty (180) days or less, then this Lease shall not terminate but the Base Rent and the Additional Rent shall be abated for the period of such taking in proportion to the ratio that the amount of rentable square feet of the Premises taken bears to the total rentable square feet of the Premises. Landlord shall be entitled to receive the entire award made in connection with any such temporary taking.

14. ASSIGNMENT AND SUBLETTING.

14.1 **Transfers** . Tenant shall not, without the prior written consent of Landlord, assign, mortgage, pledge, hypothecate, encumber, or permit any lien to attach to, or otherwise transfer, this Lease or any interest hereunder, permit any assignment, or other transfer of this Lease or any interest hereunder by operation of law, sublet the Premises or any part thereof, or enter into any license or concession agreements or otherwise permit the occupancy or use of the Premises or any part thereof by any persons other than Tenant and its employees and contractors (all of the foregoing are hereinafter sometimes referred to collectively as " **Transfers** " and any person to whom any Transfer is made or sought to be made is hereinafter sometimes referred to as a " **Transferee** "). If Tenant desires Landlord's consent to any Transfer, Tenant shall notify Landlord in writing, which notice (the " **Transfer Notice** ") shall include (i) the proposed effective date of the Transfer, which shall not be less than thirty (30) days nor more than one hundred eighty (180) days after the date of delivery of the Transfer Notice, (ii) a description of the portion of the Premises to be transferred (the " **Subject Space** "), (iii) all of the terms of the proposed Transfer and the consideration therefor, including calculation of the " **Transfer Premium** ", as that term is defined in Section 14.3 below, in connection with such Transfer, the name and address of the proposed Transferee, and a copy of all existing executed and/or proposed documentation pertaining to the proposed Transfer, and (iv) current financial statements of the proposed Transferee certified by an officer, partner or owner thereof, and any other information reasonably required by Landlord that will enable Landlord to determine the financial responsibility, character, and reputation of the proposed Transferee, nature of such Transferee's business and proposed use of the Subject Space. Any Transfer made without Landlord's prior written consent shall, at Landlord's option, be null, void and of no effect, and shall, at Landlord's option, constitute a default by Tenant under this Lease. Whether or not Landlord consents to any proposed Transfer, Tenant shall pay Landlord's reasonable review and processing fees, as well as any reasonable professional fees (including attorneys', accountants', architects', engineers' and consultants' fees) incurred by Landlord (not to exceed $3,500 in the aggregate for any particular Transfer), within thirty (30) days after written request by Landlord.

14.2 **Landlord's Consent** . Landlord shall not unreasonably withhold, condition or delay its consent to any proposed Transfer of the Subject Space to the Transferee on the terms specified in the Transfer Notice. Without limitation as to other reasonable grounds for withholding consent, the Parties hereby agree that it shall be reasonable under this Lease and under any applicable law for Landlord to withhold consent to any proposed Transfer where one or more of the following apply:

14.2.1 The Transferee is of a character or reputation or engaged in a business which is not consistent with the quality of the Building or the Project;

14.2.2 The Transferee is either a governmental agency or instrumentality thereof;

14.2.3 The Transferee is not a party of reasonable financial worth and/or financial stability in light of the responsibilities to be undertaken in connection with the Transfer on the date consent is requested; or

14.2.4 The proposed Transfer would cause a violation of another lease for space in the Project, or would give an occupant of the Project a right to cancel its lease.

If Landlord consents to any Transfer pursuant to the terms of this Section 14.2 (and does not exercise any recapture rights Landlord may have under Section 14.4), Tenant may within six (6) months after Landlord's consent, but not later than the expiration of said six-month period, enter into such Transfer of the Premises or portion thereof, upon substantially the same terms and conditions as are set forth in the Transfer Notice furnished by Tenant to Landlord pursuant to Section 14.1 , provided that if there are any changes in the terms and conditions from those specified in the Transfer Notice such that Landlord would initially have been entitled to refuse its consent to such Transfer under this Section 14.2 , Tenant shall again submit the Transfer to Landlord for its approval and other action under this Article 14 (including Landlord's right of recapture, if any, under Section 14.4). Notwithstanding anything to the contrary in this Lease, if Tenant or any proposed Transferee claims that Landlord has unreasonably withheld or delayed its consent under Section 14.2 or otherwise has breached or acted unreasonably under this Article 14 , their sole remedies shall be a suit for contract damages (other than damages for injury to, or interference with, Tenant's business including loss of profits, however occurring) or declaratory judgment and an injunction for the relief sought, and Tenant hereby waives all other remedies, including any right at law or equity to terminate this Lease, on its own behalf and, to the extent permitted under all applicable laws, on behalf of the proposed Transferee.

14.3 **Transfer Premium** . If Landlord consents to a Transfer, as a condition thereto, which the Parties hereby agree is reasonable, Tenant shall pay to Landlord fifty percent (50%) of any " **Transfer Premium** ," as that term is defined in this Section 14.3 , received by Tenant from such Transferee. " **Transfer Premium** " shall mean all rent, additional rent or other consideration payable by such Transferee in connection with the Transfer in excess of the Rent and Additional Rent payable by Tenant under this Lease during the term of the Transfer on a per rentable square foot basis if less than all of the Premises is transferred, and after deduction of (i) any costs of improvements made to the Subject Space in connection with such Transfer, (ii) free rent or rent abatement provided in connection with such Transfer, (iii) brokerage commissions paid in connection with such Transfer, and (iv) reasonable legal fees incurred in connection with such Transfer, in each case amortized over the remaining Term of this Lease. " **Transfer Premium** " shall also include, but not be limited to, key money, bonus money or other cash consideration paid by Transferee to Tenant in connection with such Transfer, and any payment in excess of fair market value for services rendered by Tenant to Transferee or for assets, fixtures, inventory, equipment, or furniture transferred by Tenant to Transferee in connection with such Transfer. The determination of the amount of Landlord's applicable share of the Transfer Premium shall be made on a monthly basis as rent or other consideration is received by Tenant under the Transfer.

14.4 **Landlord's Option as to Subject Space** . Notwithstanding anything to the contrary contained in this Article 14 , in the event Tenant contemplates a Transfer other than to a Permitted Transferee that, together with all prior Transfers then remaining in effect, would cause fifty percent (50%) or more of the Premises to be Transferred for more than fifty percent (50%) of the then remaining Lease Term (taking into account any extension of the Lease Term that has irrevocably exercised by Tenant), Tenant shall give Landlord notice (the " **Intention to Transfer Notice** ") of such contemplated Transfer (whether or not the contemplated Transferee or the terms of such contemplated Transfer have been determined). The Intention to Transfer Notice shall specify the portion of and amount of rentable square feet of the Premises which Tenant intends to Transfer in the subject Transfer (the " **Contemplated Transfer Space** "), the contemplated date of commencement of the Contemplated Transfer (the " **Contemplated Effective Date** "), and the contemplated length of the term of such contemplated Transfer. Thereafter, Landlord shall have the option, by giving written notice to Tenant within thirty (30) days after receipt of any Intention to Transfer Notice, to recapture the Contemplated Transfer Space. Such recapture shall cancel and terminate this Lease with respect to such Contemplated Transfer Space as of the Contemplated Effective Date, and this Lease shall remain in effect with respect to the balance of the Premises not so recaptured. In the event of a recapture by Landlord, if this Lease shall be canceled with respect to less than the entire Premises, the Rent reserved herein shall be prorated on the basis of the number of rentable square feet retained by Tenant in proportion to the number of rentable square feet contained in the Premises, and this Lease as so amended shall continue thereafter in full force and effect, and upon request of either Party, the

Parties shall execute written confirmation of the same. If Landlord declines, or fails to elect in a timely manner, to recapture such Contemplated Transfer Space under this Section 14.4 , then, subject to the other terms of this Article 14 , for a period of nine (9) months (the " **Nine Month Period** ") commencing on the last day of such thirty (30) day period, Landlord shall not have any right to recapture the Contemplated Transfer Space with respect to any Transfer made during the Nine Month Period, provided that any such Transfer is substantially on the terms set forth in the Intention to Transfer Notice, and provided further that any such Transfer shall be subject to the remaining terms of this Article 14 . If such a Transfer is not so consummated within the Nine Month Period (or if a Transfer is so consummated, then upon the expiration of the term of any Transfer of such Contemplated Transfer Space consummated within such Nine Month Period), Tenant shall again be required to submit a new Intention to Transfer Notice to Landlord with respect any contemplated Transfer, as provided above in this Section 14.4 . Tenant shall not be required to provide a separate Intention to Transfer Notice and Tenant's request for Landlord's consent to a Transfer shall satisfy Tenant's obligations in this Section 14.4 .

14.5 **Effect of Transfer** . If Landlord consents to a Transfer, (i) the terms and conditions of this Lease shall in no way be deemed to have been waived or modified, (ii) such consent shall not be deemed consent to any further Transfer by either Tenant or a Transferee, (iii) Tenant shall deliver to Landlord, promptly after execution, an original executed copy of all documentation pertaining to the Transfer in form reasonably acceptable to Landlord, (iv) Tenant shall furnish upon Landlord's request a complete statement, certified by an independent certified public accountant, or Tenant's chief financial officer, setting forth in detail the computation of any Transfer Premium Tenant has derived and shall derive from such Transfer, and (v) no Transfer relating to this Lease or agreement entered into with respect thereto, whether with or without Landlord's consent, shall relieve Tenant or any guarantor of this Lease from any liability under this Lease, including in connection with the Subject Space. Landlord or its authorized representatives shall have the right at all reasonable times to audit the books, records and papers of Tenant relating to any Transfer, and shall have the right to make copies thereof. If the Transfer Premium respecting any Transfer shall be found understated, Tenant shall, within thirty (30) days after demand, pay the deficiency, and if understated by more than five percent (5%), Tenant shall pay Landlord's costs of such audit.

14.6 **Additional Transfers** . For purposes of this Lease, the term " **Transfer** " shall also include if Tenant is a partnership, the withdrawal or change, voluntary, involuntary or by operation of law, of fifty percent (50%) or more of the partners, or transfer of fifty percent (50%) or more of partnership interests, within a twelve (12)-month period, or the dissolution of the partnership without immediate reconstitution thereof.

14.7 **Occurrence of Default** . Any Transfer hereunder shall be subordinate and subject to the provisions of this Lease, and if this Lease shall be terminated during the term of any Transfer, Landlord shall have the right to: (i) treat such Transfer as cancelled and repossess the Subject Space by any lawful means, or (ii) require that such Transferee attorn to and recognize Landlord as its landlord under any such Transfer. If Tenant shall be in default under this Lease, Landlord is hereby irrevocably authorized, as Tenant's agent and attorney-in-fact, to direct any Transferee to make all payments under or in connection with the Transfer directly to Landlord (which Landlord shall apply towards Tenant's obligations under this Lease) until such default is cured. Such Transferee shall rely on any representation by Landlord that Tenant is in default hereunder, without any need for confirmation thereof by Tenant. Upon any assignment, the assignee shall assume in writing all obligations and covenants of Tenant thereafter to be performed or observed under this Lease. No collection or acceptance of rent by Landlord from any Transferee shall be deemed a waiver of any provision of this Article 14 or the approval of any Transferee or a release of Tenant from any obligation under this Lease, whether theretofore or thereafter accruing. In no event shall Landlord's enforcement of any provision of this Lease against any Transferee be deemed a waiver of Landlord's right to enforce any term of this Lease against Tenant or any other person. If Tenant's obligations hereunder have been guaranteed, Landlord's consent to any Transfer shall not be effective unless the guarantor also consents to such Transfer.

14.8 **Non-Transfers** . Notwithstanding anything to the contrary contained in this Article 14 , (i) an assignment or subletting of all or a portion of the Premises to an affiliate of Tenant (an entity that is controlled by, controls, or is under common control with, Tenant), (ii) an assignment of the Premises to an entity that acquires all or substantially all of the assets or interests (partnership, stock or other) of Tenant, or (iii) an assignment of the Premises to an entity that is the resulting entity of a merger or consolidation of Tenant with another entity (collectively, a " **Permitted Transferee** "), shall not be deemed a Transfer under this Article 14 (and for the avoidance of doubt, Sections 14.2 , 14.3 and 14.4 . shall not apply to such Transfer), provided that (A) Tenant notifies Landlord of any such assignment or sublease and promptly supplies Landlord with any documents or information requested by Landlord

regarding such assignment or sublease or such affiliate, (B) such assignment or sublease is not a subterfuge by Tenant to avoid its obligations under this Lease, (C) such Permitted Transferee shall be of a character and reputation consistent with the quality of the Building, and (D) such Permitted Transferee described in subpart (ii) or (iii) above shall have a tangible net worth (not including goodwill as an asset) computed in accordance with generally accepted accounting principles (" **Net Worth** ") at least equal to the Net Worth of Tenant on the day immediately preceding the effective date of such assignment or sublease . An assignee of Tenant's entire interest that is also a Permitted Transferee may also be known as a " **Permitted Assignee** ". " **Control** ," as used in this Section 14.8 , shall mean the ownership, directly or indirectly, of at least fifty-one percent (51%) of the voting securities of, or possession of the right to vote, in the ordinary direction of its affairs, of at least fifty-one percent (51%) of the voting interest in, any person or entity. No such permitted assignment or subletting shall serve to release Tenant from any of its obligations under this Lease.

15. SURRENDER OF PREMISES; OWNERSHIP AND REMOVAL OF TRADE FIXTURES.

15.1 **Surrender of Premises** . No act or thing done by Landlord or any agent or employee of Landlord during the Lease Term shall be deemed to constitute an acceptance by Landlord of a surrender of the Premises unless such intent is specifically acknowledged in writing by Landlord. The delivery of keys to the Premises to Landlord or any agent or employee of Landlord shall not constitute a surrender of the Premises or effect a termination of this Lease, whether or not the keys are thereafter retained by Landlord, and notwithstanding such delivery Tenant shall be entitled to the return of such keys at any reasonable time upon request until this Lease shall have been properly terminated. The voluntary or other surrender of this Lease by Tenant, whether accepted by Landlord or not, or a mutual termination hereof, shall not work a merger, and at the option of Landlord shall operate as an assignment to Landlord of all subleases or subtenancies affecting the Premises or terminate any or all such sublessees or subtenancies.

15.2 **Removal of Tenant Property by Tenant** . Upon the expiration of the Lease Term, or upon any earlier termination of this Lease, Tenant shall, subject to the provisions of this Article 15 , quit and surrender possession of the Premises to Landlord in as good order and condition as when Tenant took possession and as thereafter improved by Landlord and/or Tenant, reasonable wear and tear, damage caused by casualty, repairs required as a result of condemnation, and repairs that are specifically made the responsibility of Landlord hereunder excepted. Upon such expiration or termination, Tenant shall, without expense to Landlord, remove or cause to be removed from the Premises all debris and rubbish, and such items of furniture, equipment, free-standing cabinet work, movable partitions (but not demountable walls) and other articles of personal property owned by Tenant or installed or placed by Tenant at its expense in the Premises, and such similar articles of any other persons claiming under Tenant, as Landlord may, in its sole discretion, require to be removed, and Tenant shall repair at its own expense all damage to the Premises and Building resulting from such removal.

15.3 **Environmental Assessment** . In connection with its surrender of the Premises, Tenant shall submit to Landlord, at least fifteen (15) days prior to the expiration date of this Lease (or in the event of an earlier termination of this Lease, as soon as reasonably possible following such termination), an environmental Assessment of the Premises by a competent and experienced environmental engineer or engineering firm reasonably satisfactory to Landlord (pursuant to a contract approved by Landlord and providing that Landlord can rely on the Environmental Assessment). If such Environmental Assessment reveals that remediation or Clean-up is required under any Environmental Laws that Tenant is responsible for under this Lease, Tenant shall submit a remediation plan prepared by a recognized environmental consultant and shall be responsible for all costs of remediation and Clean-up, as more particularly provided in Section 5.3 .

15.4 **Condition of the Building and Premises Upon Surrender** . In addition to the above requirements of this Article 15 , upon the expiration of the Lease Term, or upon any earlier termination of this Lease, Tenant shall, surrender the Premises and Building with Tenant having complied with all of Tenant’s obligations under this Lease, including those relating to improvement, repair, maintenance, compliance with law, testing and other related obligations of Tenant set forth in Article 7 . In the event that the Building and Premises shall be surrendered in a condition that does not comply with the terms of this Section 15.4 , because Tenant failed to comply with its obligations set forth in Lease, then following thirty (30) days' notice to Tenant, during which thirty (30) day period Tenant shall have the right to cure such noncompliance, Landlord shall be entitled to expend all reasonable costs in order to cause the same to comply with the required condition upon surrender and Tenant shall promptly reimburse Landlord for all such costs upon notice and, commencing on the later of the termination of this Lease and three (3) business days after

Landlord's delivery of notice of such failure and that it elects to treat such failure as a holdover, Tenant shall be deemed during the period that Tenant or Landlord, as the case may be, perform obligations relating to the Surrender Improvements to be in holdover under Article 16 .

16. HOLDING OVER. If Tenant holds over after the expiration of the Lease Term or earlier termination thereof, with the express or implied consent of Landlord, such tenancy shall be from month-to-month only, and shall not constitute a renewal hereof or an extension for any further term. If Tenant holds over after the expiration of the Lease Term of earlier termination thereof, without the express or implied consent of Landlord, such tenancy shall be deemed to be a tenancy by sufferance only, and shall not constitute a renewal hereof or an extension for any further term. In either case, Base Rent shall be payable at a monthly rate equal to one hundred fifty percent (150%) of the Base Rent applicable during the last rental period of the Lease Term under this Lease. Such month-to-month tenancy or tenancy by sufferance, as the case may be, shall be subject to every other applicable term, covenant and agreement contained herein. Nothing contained in this Article 16 shall be construed as consent by Landlord to any holding over by Tenant, and Landlord expressly reserves the right to require Tenant to surrender possession of the Premises to Landlord as provided in this Lease upon the expiration or other termination of this Lease. The provisions of this Article 16 shall not be deemed to limit or constitute a waiver of any other rights or remedies of Landlord provided herein or at law. If Tenant fails to surrender the Premises upon the termination or expiration of this Lease, in addition to any other liabilities to Landlord accruing therefrom, Tenant shall protect, defend, indemnify and hold Landlord harmless from all loss, costs (including reasonable attorneys' fees) and liability resulting from such failure, including, without limiting the generality of the foregoing, any claims made by any succeeding tenant founded upon such failure to surrender and any lost profits to Landlord resulting therefrom.

17. ESTOPPEL CERTIFICATES. Within ten (10) business days following a request in writing by Landlord, Tenant shall execute, acknowledge and deliver to Landlord an estoppel certificate, which, as submitted by Landlord, shall be substantially in the form of **Exhibit D** , attached hereto (or such other form as may be reasonably required by any prospective mortgagee or purchaser of the Project, or any portion thereof), indicating therein any exceptions thereto that may exist at that time, and shall also contain any other information reasonably requested by Landlord or Landlord's mortgagee or prospective mortgagee. Any such certificate may be relied upon by any prospective mortgagee or purchaser of all or any portion of the Project. Tenant shall execute and deliver whatever other instruments may be reasonably required for such purposes. At any time during the Lease Term, in connection with a sale or financing of the Building by Landlord, Landlord may require Tenant to provide Landlord with its most recent annual financial statement and annual financial statements of the preceding two (2) years, if Tenant is not at the time of Landlord’s request publicly listed on a nationally-recognized stock exchange or market. Such statements shall be prepared in accordance with generally accepted accounting principles and, if such is the normal practice of Tenant, shall be audited by an independent certified public accountant. Landlord shall hold such statements confidential. Failure of Tenant to timely execute, acknowledge and deliver such estoppel certificate or other instruments shall constitute an acceptance of the Premises and an acknowledgment by Tenant that statements included in the estoppel certificate are true and correct, without exception.

18. SUBORDINATION. Landlord hereby represents and warrants to Tenant that the Project is not currently subject to any ground lease, or to the lien of any mortgage or deed of trust. This Lease shall be subject and subordinate to all future ground or underlying leases of the Building or Project and to the lien of any mortgage, trust deed or other encumbrances now or hereafter in force against the Building or Project or any part thereof, if any, and to all renewals, extensions, modifications, consolidations and replacements thereof, and to all advances made or hereafter to be made upon the security of such mortgages or trust deeds, unless the holders of such mortgages, trust deeds or other encumbrances, or the lessors under such ground lease or underlying leases, require in writing that this Lease be superior thereto. The subordination of this Lease to any such future ground or underlying leases of the Building or Project or to the lien of any mortgage, trust deed or other encumbrances, shall be subject to Tenant's receipt of a commercially reasonable subordination, non-disturbance, and attornment agreement in favor of Tenant. Tenant covenants and agrees in the event any proceedings are brought for the foreclosure of any such mortgage or deed in lieu thereof (or if any ground lease is terminated), to attorn, without any deductions or set-offs whatsoever, to the lienholder or purchaser or any successors thereto upon any such foreclosure sale or deed in lieu thereof (or to the ground lessor), if so requested to do so by such purchaser or lienholder or ground lessor, and to recognize such purchaser or lienholder or ground lessor as the lessor under this Lease, provided such lienholder or purchaser or ground lessor shall agree to accept this Lease and not disturb Tenant's occupancy, so long as Tenant timely pays the rent and observes and performs the terms, covenants and conditions of this Lease to be observed and performed by Tenant.

Landlord's interest herein may be assigned as security at any time to any lienholder. Tenant shall, within ten (10) days of request by Landlord, execute such further instruments or assurances as Landlord may reasonably deem necessary to evidence or confirm the subordination or superiority of this Lease to any such mortgages, trust deeds, ground leases or underlying leases. Tenant waives the provisions of any current or future statute, rule or law which may give or purport to give Tenant any right or election to terminate or otherwise adversely affect this Lease and the obligations of the Tenant hereunder in the event of any foreclosure proceeding or sale.

19. DEFAULTS; REMEDIES.

19.1 **Events of Default** . The occurrence of any of the following shall constitute a default of this Lease by Tenant:

19.1.1 Any failure by Tenant to pay any Rent or any other charge required to be paid under this Lease, or any part thereof, when due unless such failure is cured within five (5) business days after written notice; or

19.1.2 Except where a specific time period is otherwise set forth for Tenant's performance in this Lease, in which event the failure to perform by Tenant within such time period shall be a default by Tenant under this Section 19.1.2 , any failure by Tenant to observe or perform any other provision, covenant or condition of this Lease to be observed or performed by Tenant where such failure continues for thirty (30) days after written notice thereof from Landlord to Tenant; provided that if the nature of such default is such that the same cannot reasonably be cured within a thirty (30) day period, Tenant shall not be deemed to be in default if it diligently commences such cure within such period and thereafter diligently proceeds to rectify and cure such default; or

19.1.3 Abandonment or vacation of all or a substantial portion of the Premises by Tenant while Tenant is in default under this Lease; or

19.1.4 The failure by Tenant to observe or perform according to the provisions of Articles 5 , 14 , 17 or 18 of this Lease where such failure continues for more than five (5) business days after written notice from Landlord.

19.2 **Remedies Upon Default** . Upon the occurrence and during the continuance of any event of default by Tenant, Landlord shall have, in addition to any other remedies available to Landlord at law or in equity (all of which remedies shall be distinct, separate and cumulative), the option to pursue any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever.

19.2.1 Terminate this Lease, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy that it may have for possession or arrearages in rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim or damages therefor; and Landlord may recover from Tenant the following:

(i) The worth at the time of award of the unpaid rent that has been earned at the time of such termination; plus

(ii) The worth at the time of award of the amount by which the unpaid rent that would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iii) The worth at the time of award of the amount by which the unpaid rent for the balance of the Lease Term after the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iv) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or that in the ordinary course of things would be likely to result therefrom, specifically including, in each case to

the extent allocable to the remaining Lease Term, brokerage commissions and advertising expenses incurred to obtain a new tenant, expenses of remodeling the Premises or any portion thereof for a new tenant, whether for the same or a different use, and any special concessions made to obtain a new tenant; and

(v) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable law.

The term " **rent** " as used in this Section 19.2 shall be deemed to be and to mean all sums of every nature required to be paid by Tenant pursuant to the terms of this Lease, whether to Landlord or to others. As used in Sections 19.2.1(i) and (ii) , the "worth at the time of award" shall be computed by allowing interest at the rate set forth in Article 25 , but in no case greater than the maximum amount of such interest permitted by law. As used in Section 19.2.1(iii) , the " **worth at the time of award** " shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%).

19.2.2 Landlord shall have the remedy described in California Civil Code Section 1951.4 (lessor may continue lease in effect after lessee's breach and abandonment and recover rent as it becomes due, if lessee has the right to sublet or assign, subject only to reasonable limitations). Accordingly, if Landlord does not elect to terminate this Lease on account of any default by Tenant, Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies under this Lease, including the right to recover all rent as it becomes due.

19.2.3 Landlord shall at all times have the rights and remedies (which shall be cumulative with each other and cumulative and in addition to those rights and remedies available under Sections 19.2.1 and 19.2.2 , or any law or other provision of this Lease), without prior demand or notice except as required by applicable law, to seek any declaratory, injunctive or other equitable relief, and specifically enforce this Lease, or restrain or enjoin a violation or breach of any provision hereof.

19.3 **Subleases of Tenant** . If Landlord elects to terminate this Lease on account of any default by Tenant, as set forth in this Article 19 , Landlord shall have the right to terminate any and all subleases, licenses, concessions or other consensual arrangements for possession entered into by Tenant and affecting the Premises or may, in Landlord's sole discretion, succeed to Tenant's interest in such subleases, licenses, concessions or arrangements. In the event of Landlord's election to succeed to Tenant's interest in any such subleases, licenses, concessions or arrangements, Tenant shall, as of the date of notice by Landlord of such election, have no further right to or interest in the rent or other consideration receivable thereunder.

19.4 **Efforts to Relet** . No re-entry, repairs, maintenance, changes, alterations and additions, appointment of a receiver to protect Landlord's interests hereunder, or any other action or omission by Landlord shall be construed as an election by Landlord to terminate this Lease or Tenant's right to possession, or to accept a surrender of the Premises, nor shall same operate to release Tenant in whole or in part from any of Tenant's obligations hereunder, unless express written notice of such intention is sent by Landlord to Tenant.

19.5 **Landlord Default** .

19.5.1 **General** . Notwithstanding anything to the contrary set forth in this Lease, Landlord shall not be in default in the performance of any obligation required to be performed by Landlord pursuant to this Lease unless Landlord fails to perform such obligation within thirty (30) days after the receipt of notice from Tenant specifying in detail Landlord's failure to perform; provided, however, if the nature of Landlord's obligation is such that more than thirty (30) days are required for its performance, then Landlord shall not be in default under this Lease if it shall commence such performance within such thirty (30) day period and thereafter diligently pursue the same to completion. Upon any such default by Landlord under this Lease, Tenant may, except as otherwise specifically provided in this Lease to the contrary, exercise any of its rights provided at law or in equity.

19.5.2 **Abatement of Rent** . In the event that Tenant is prevented from using, and does not use, the Premises or any portion thereof, as a result of (i) any repair, maintenance or alteration performed by Landlord, or which Landlord failed to perform, after the Rent Commencement Date and required by this Lease, or (ii) any failure

to provide services, utilities or access to the Premises as required by this Lease, each as a direct result of Landlord's, negligence or willful misconduct or breach of this Lease (and except to the extent such failure is caused in whole or in part by the action or inaction of Tenant) (any such set of circumstances as set forth in items (i) or (ii), above, to be known as an " **Abatement Event** "), then Tenant shall give Landlord notice of such Abatement Event, and if such Abatement Event continues for five (5) consecutive business days after Landlord's receipt of any such notice (the " **Eligibility Period** "), then the Base Rent, Tenant's Share of Direct Expenses, and Tenant's obligation, if any, to pay for parking (to the extent not utilized by Tenant) shall be abated or reduced, as the case may be, after expiration of the Eligibility Period for such time that Tenant continues to be so prevented from using, and does not use for the normal conduct of Tenant's business, the Premises or a portion thereof, in the proportion that the rentable area of the portion of the Premises that Tenant is prevented from using, and does not use, bears to the total rentable area of the Premises; provided, however, in the event that Tenant is prevented from using, and does not use, a portion of the Premises for a period of time in excess of the Eligibility Period and the remaining portion of the Premises is not sufficient to allow Tenant to effectively conduct its business therein, and if Tenant does not effectively conduct its business from such remaining portion, then for such time after expiration of the Eligibility Period during which Tenant is so prevented from effectively conducting its business therein, the Base Rent and Tenant's Share of Direct Expenses for the entire Premises and Tenant's obligation to pay for parking shall be abated for such time as Tenant continues to be so prevented from using, and does not use, the Premises. If, however, Tenant reoccupies any portion of the Premises during such period, the Rent allocable to such reoccupied portion, based on the proportion that the rentable area of such reoccupied portion of the Premises bears to the total rentable area of the Premises, shall be payable by Tenant from the date Tenant reoccupies such portion of the Premises. To the extent an Abatement Event is caused by an event covered by Articles 5, 11 or 13 of this Lease, then Tenant's right to abate rent shall be governed by the terms of such Article 5, 11 or 13, as applicable, and the Eligibility Period shall not be applicable thereto. Except as provided in this Section 19.5.2 , nothing contained herein shall be interpreted to mean that Tenant is excused from paying Rent due hereunder.

20. COVENANT OF QUIET ENJOYMENT. Landlord covenants that Tenant, on paying the Rent, charges for services and other payments herein reserved and on keeping, observing and performing all the other terms, covenants, conditions, provisions and agreements herein contained on the part of Tenant to be kept, observed and performed, within the notice and cure periods provided for in this Lease, shall, during the Lease Term, peaceably and quietly have, hold and enjoy the Premises subject to the terms, covenants, conditions, provisions and agreements hereof without interference by any persons lawfully claiming by or through Landlord. The foregoing covenant is in lieu of any other covenant express or implied.

21. LETTER OF CREDIT.

21.1 **Delivery of Letter of Credit** . Tenant shall deliver to Landlord, concurrently with Tenant's execution of this Lease, an unconditional, clean, irrevocable letter of credit (the " **L-C** ") in the amount set forth in Section 8 of the Lease Summary (the " **L-C Amount** "), which L-C shall be issued by a money-center, solvent and nationally recognized bank (a bank that accepts deposits, maintains accounts, has a local San Francisco Bay Area office that will negotiate a letter of credit, and whose deposits are insured by the FDIC) reasonably acceptable to Landlord (such approved, issuing bank being referred to herein as the " **Bank** "), which Bank must have a rating from Standard and Poors Corporation of A- or better (or any equivalent rating thereto from any successor or substitute rating service selected by Landlord) and a letter of credit issuer rating from Moody's Investor Service of A3 or better (or any equivalent rating thereto from any successor rating agency thereto)) (collectively, the " **Bank's Credit Rating Threshold** "), and which L-C shall be in the form of **Exhibit H** , attached hereto. Landlord hereby approves Wells Fargo Bank as the Bank. Tenant shall pay all expenses, points and/or fees incurred by Tenant in obtaining the L-C. The L-C shall (i) be "callable" at sight, irrevocable and unconditional, (ii) be maintained in effect, whether through renewal or extension, for the period commencing on the Execution Date and continuing until the date (the " **L-C Expiration Date** ") that is no less than sixty (60) days after the expiration of the Lease Term as the same may be extended, and Tenant shall deliver a new L-C or certificate of renewal or extension to Landlord at least thirty (30) days prior to the expiration of the L-C then held by Landlord, without any action whatsoever on the part of Landlord, (iii) be fully assignable by Landlord, its successors and assigns, (iv) permit partial draws and multiple presentations and drawings, and (v) be otherwise subject to the Uniform Customs and Practices for Documentary Credits (1993-Rev), International Chamber of Commerce Publication #500, or the International Standby Practices-ISP 98, International Chamber of Commerce Publication #590. Landlord shall have the right to draw down an amount up to the face amount of the L-C if any of the following shall have occurred or be applicable: (A) such amount is due to

Landlord under the terms and conditions of this Lease, and has not been paid within applicable notice and cure periods (or, if Landlord is prevented by law from providing notice, within the period for payment set forth in this Lease, plus applicable cure periods, assuming that notice is deemed delivered on the first business day following the expiration of the period for payment set forth in this Lease), or (B) Tenant has filed a voluntary petition under the U. S. Bankruptcy Code or any state bankruptcy code (collectively, " **Bankruptcy Code** "), or (C) an involuntary petition has been filed against Tenant under the Bankruptcy Code that is not dismissed within thirty (30) days, or (D) this Lease has been rejected, or is deemed rejected, under Section 365 of the U.S. Bankruptcy Code, following the filing of a voluntary petition by Tenant under the Bankruptcy Code, or the filing of an involuntary petition against Tenant under the Bankruptcy Code, or (E) the Bank has notified Landlord that the L -C will not be renewed or extended through the L -C Expiration Date , and Tenant has not provided a replacement L-C that satisfies the requirements of this Lease at least thirty (30) days prior to such expiration, or (F) Tenant is placed into receivership or conservatorship, or becomes subject to similar proceedings under Federal or State law, or (G) Tenant executes an assignment for the benefit of creditors, or (H) if (1) any of the Bank's (other than Wells Fargo Bank) Fitch Ratings (or other comparable ratings to the extent the Fitch Ratings are no longer available) have been reduced below the Bank's Credit Rating Threshold, or (2) there is otherwise a material adverse change in the financial condition of the Bank, and Tenant has failed to provide Landlord with a replacement letter of credit, conforming in all respects to the requirements of this Article 21 (including the requirements placed on the issuing Bank more particularly set forth in this Section 21.1), in the amount of the applicable L -C Amount, within ten (10) business days following Landlord's written demand therefor (with no other notice or cure or grace period being applicable thereto, notwithstanding anything in this Lease to the contrary) (each of the foregoing being an " **L -C Draw Event** ") . The L -C shall be honored by the Bank regardless of whether Tenant disputes Landlord's right to draw upon the L -C. In addition, in the event the Bank is placed into receivership or conservatorship by the Federal Deposit Insurance Corporation or any successor or similar entity, then, effective as of the date such receivership or conservatorship occurs, said L -C shall be deemed to fail to meet the requirements of this Article 21 , and, within ten (10) business days following Landlord's notice to Tenant of such receivership or conservatorship (the " **L -C FDIC Replacement Notice** "), Tenant shall replace such L -C with a substitute letter of credit from a different issuer (which issuer shall meet or exceed the Bank's Credit Rating Threshold and shall otherwise be acceptable to Landlord in its reasonable discretion) and that complies in all respects with the requirements of this Article 21 . If Tenant fails to replace such L -C with such conforming, substitute letter of credit pursuant to the terms and conditions of this Section 21.1 , then, notwithstanding anything in this Lease to the contrary, Landlord shall have the right to declare Tenant in default of this Lease for which there shall be no notice or grace or cure periods being applicable thereto (other than the aforesaid ten (10) business day period). Tenant shall be responsible for the payment of any and all Tenant's and Bank's costs incurred with the review of any replacement L -C, which replacement is required pursuant to this Section or is otherwise requested by Tenant. In the event of an assignment by Tenant of its interest in this Lease (and irrespective of whether Landlord's consent is required for such assignment), the acceptance of any replacement or substitute letter of credit by Landlord from the assignee shall be subject to Landlord's prior written approval, in Landlord's reasonable discretion, and the actual and reasonable attorney's fees incurred by Landlord in connection with such determination shall be payable by Tenant to Landlord within thirty (30) days of billing.

21.2 **Application of L - C** . Tenant hereby acknowledges and agrees that Landlord is entering into this Lease in material reliance upon the ability of Landlord to draw upon the L-C upon the occurrence of any L-C Draw Event. In the event of any L-C Draw Event, Landlord may, but without obligation to do so, and without notice to Tenant (except in connection with an L-C Draw Event under Section 21.1(H)), draw upon the L-C, in part or in whole, in the amount necessary to cure any such L-C Draw Event and/or to compensate Landlord for any and all damages of any kind or nature sustained or that Landlord reasonably estimates that it will sustain resulting from Tenant's default of this Lease or other L-C Draw Event and/or to compensate Landlord for any and all damages arising out of, or incurred in connection with, the termination of this Lease, including, without limitation, those specifically identified in Section 1951.2 of the California Civil Code. The use, application or retention of the L-C, or any portion thereof, by Landlord shall not prevent Landlord from exercising any other right or remedy provided by this Lease or by any applicable law, it being intended that Landlord shall not first be required to proceed against the L-C, and such L-C shall not operate as a limitation on any recovery to which Landlord may otherwise be entitled. Tenant agrees and acknowledges that (i) the L-C constitutes a separate and independent contract between Landlord and the Bank, (ii) Tenant is not a third party beneficiary of such contract, (iii) Tenant has no property interest whatsoever in the L-C or the proceeds thereof, and (iv) in the event Tenant becomes a debtor under any chapter of the Bankruptcy Code, Tenant is placed into receivership or conservatorship, and/or there is an event of a receivership, conservatorship or a bankruptcy filing by, or on behalf of, Tenant, neither Tenant, any trustee, nor Tenant's bankruptcy estate shall have

any right to restrict or limit Landlord's claim and/or rights to the L -C and/or the proceeds thereof by application of Section 502(b)(6) of the U. S. Bankruptcy Code or otherwise.

21.3 **Maintenance of L-C by Tenant** If, as a result of any drawing by Landlord of all or any portion of the L-C, the amount of the L-C shall be less than the L-C Amount, Tenant shall, within ten (10) business days thereafter, provide Landlord with additional letter(s) of credit in an amount equal to the deficiency, and any such additional letter(s) of credit shall comply with all of the provisions of this Article 21 . Tenant further covenants and warrants that it will neither assign nor encumber the L-C or any part thereof and that neither Landlord nor its successors or assigns will be bound by any such assignment, encumbrance, attempted assignment or attempted encumbrance. Without limiting the generality of the foregoing, if the L-C expires earlier than the L-C Expiration Date, Landlord will accept a renewal thereof (such renewal letter of credit to be in effect and delivered to Landlord, as applicable, not later than thirty (30) days prior to the expiration of the L-C), which shall be irrevocable and automatically renewable as above provided through the L-C Expiration Date upon substantially the same terms as the expiring L-C or such other terms as may be acceptable to Landlord in its reasonable discretion. If Tenant exercises its option to extend the Lease Term pursuant to Section 2.2 then, not later than thirty (30) days prior to the commencement of the Option Term, Tenant shall deliver to Landlord a new L C or certificate of renewal or extension evidencing the L-C Expiration Date as thirty (30) days after the expiration of the Option Term. However, if the L-C is not timely renewed, or if Tenant fails to maintain the L-C in the amount and in accordance with the terms set forth in this Article 21 , Landlord shall have the right to present the L-C to the Bank in accordance with the terms of this Article 21 , and the proceeds of the L-C shall be applied by Landlord against any Rent payable by Tenant under this Lease that is not paid when due and/or to pay for all losses and damages that Landlord has suffered or that Landlord reasonably estimates that it will suffer as a result of any breach or default by Tenant under this Lease. In the event Landlord elects to exercise its rights as provided above, (I) any unused proceeds shall constitute the property of Landlord (and not Tenant's property or, in the event of a receivership, conservatorship, or a bankruptcy filing by, or on behalf of, Tenant, property of such receivership, conservatorship or Tenant's bankruptcy estate) and need not be segregated from Landlord's other assets, and (II) Landlord agrees to pay to Tenant within thirty (30) days after the L-C Expiration Date the amount of any proceeds of the L-C received by Landlord and not applied against any Rent payable by Tenant under this Lease that was not paid when due or used to pay for any losses and/or damages suffered by Landlord (or reasonably estimated by Landlord that it will suffer) as a result of any breach or default by Tenant under this Lease; provided, however, that if prior to the L-C Expiration Date a voluntary petition is filed by Tenant, or an involuntary petition is filed against Tenant by any of Tenant's creditors, under the Bankruptcy Code, then Landlord shall not be obligated to make such payment in the amount of the unused L-C proceeds until either all preference issues relating to payments under this Lease have been resolved in such bankruptcy or reorganization case or such bankruptcy or reorganization case has been dismissed. If Landlord draws on the L-C due to Tenant's failure to timely renew or provide a replacement L-C, such failure shall not be considered a default under this Lease and Landlord shall return such cash proceeds upon Tenant's presentation of a replacement L-C that satisfies the requirements of this Lease, subject to reasonable satisfaction of any preference risk to Landlord.

21.4 **Transfer and Encumbrance** . The L-C shall also provide that Landlord may, at any time and without notice to Tenant and without first obtaining Tenant's consent thereto, transfer (one or more times) its entire interest in and to the L-C to another party, person or entity, provided such transfer is in connection with the assignment by Landlord of its rights and interests in and to this Lease. In the event of a transfer of Landlord's interest in under this Lease, Landlord shall transfer the L-C to the transferee and thereupon Landlord shall, without any further agreement between the Parties, be released by Tenant from all liability therefor, and it is agreed that the provisions hereof shall apply to every transfer or assignment of the whole of said L-C to a new landlord. In connection with any such transfer of the L-C by Landlord, Tenant shall, at Tenant's sole cost and expense, execute and submit to the Bank such applications, documents and instruments as may be necessary to effectuate such transfer and, Tenant shall be responsible for paying the Bank's transfer and processing fees in connection therewith; provided that, Landlord shall have the right (in its sole discretion), but not the obligation, to pay such fees on behalf of Tenant, in which case Tenant shall reimburse Landlord within ten (10) business days after Tenant's receipt of an invoice from Landlord therefor.

21.5 **L-C Not a Security Deposit** . Landlord and Tenant (1) acknowledge and agree that in no event or circumstance shall the L - C or any renewal thereof or substitute therefor or any proceeds thereof be deemed to be or treated as a "security deposit" under any law applicable to security deposits in the commercial context, including Section 1950.7 of the California Civil Code, as such Section now exists or as it may be hereafter amended or succeeded (the " **Security Deposit Laws** "), (2) acknowledge and agree that the L - C (including any renewal thereof or substitute

therefor or any proceeds thereof) is not intended to serve as a security deposit, and the Security Deposit Laws shall have no applicability or relevancy thereto, and (3) waive any and all rights, duties and obligations that any such Party may now, or in the future will, have relating to or arising from the Security Deposit Laws. Tenant hereby irrevocably waives and relinquishes the provisions of Section 1950.7 of the California Civil Code and any successor statute, and all other provisions of law, now or hereafter in effect, that (x) establish the time frame by which a landlord must refund a security deposit under a lease, and/or (y) provide that a landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of rent, to repair damage caused by a tenant or to clean the premises, it being agreed that Landlord may, in addition, claim those sums specified in this Article 21 and/or those sums reasonably necessary to (a) compensate Landlord for any loss or damage caused by Tenant's breach of this Lease, including any damages Landlord suffers following termination of this Lease, and/or (b) compensate Landlord for any and all damages arising out of, or incurred in connection with, the termination of this Lease, including those specifically identified in Section 1951.2 of the California Civil Code . Tenant agrees not to interfere in any way with any payment to Landlord of the proceeds of the L-C, either prior to or following a "draw" by Landlord of all or any portion of the L-C, regardless of whether any dispute exists between Tenant and Landlord as to Landlord's right to draw down all or any portion of the L-C. No condition or term of this Lease shall be deemed to render the L -C conditional and thereby afford the Bank a justification for failing to honor a drawing upon such L-C in a timely manner. Tenant shall not request or instruct the Bank of any L -C to refrain from paying sight draft(s) drawn under such L -C.

21.6 **Remedy for Improper Drafts** . Tenant's sole remedy in connection with the improper presentment or payment of sight drafts drawn under any L-C shall be the right to obtain from Landlord a refund of the amount of any sight draft(s) that were improperly presented or the proceeds of which were misapplied, and reasonable actual out-of-pocket costs and attorneys' fees, provided that at the time of such refund, Tenant increases the amount of such L-C to the amount (if any) then required under the applicable provisions of this Lease. Tenant acknowledges that the presentment of sight drafts drawn under any L-C, or the Bank's payment of sight drafts drawn under such L-C, could not under any circumstances cause Tenant injury that could not be remedied by an award of money damages, and that the recovery of money damages would be an adequate remedy therefor. In the event Tenant shall be entitled to a refund as aforesaid and Landlord shall fail to make such payment within ten (10) business days after demand, Tenant shall have the right to deduct the amount thereof from the next installment(s) of Base Rent.

21.7 **Reduction in L-C Amount** . Notwithstanding anything to the contrary in this Lease, provided that (a) Tenant maintains a market capitalization in excess of One Billion Dollars ($1,000,000,000.00) (the " **Market Cap Test** ") at all times during the fifth (5 th) Lease Year, and (b) Tenant is not in default under this Lease at the expiration of the fifth (5 th) Lease Year, the L-C Amount shall be reduced by fifty percent (50%) upon the first day of the sixth (6 th) Lease Year. If Tenant does not meet the Market Cap Test in the fifth (5 th) Lease Year, then on the first time after the 5th Lease Year that Tenant meets the Market Cap Test for a continuous twelve (12) month period, and is not in default under this Lease, then the L-C Amount shall be reduced by fifty percent (50%).

22. COMMUNICATIONS AND COMPUTER LINE. Tenant may install, maintain, replace, remove or use any communications or computer wires and cables serving the Premises (collectively, the " **Lines** "), provided that Tenant shall use an experienced and qualified contractor approved in writing by Landlord, and comply with all of the other provisions of Articles 7 and 8. Tenant shall pay all costs in connection therewith. Tenant shall not be obligated to remove any Lines located in or serving the Premises upon the expiration or earlier termination of this Lease.

23. SIGNS.

23.1 **Exterior Signage** . Subject to Landlord's prior written approval, which shall not be unreasonably withheld, conditioned or delayed, and provided all signs are in keeping with the quality, design and style of the Building and Project, Tenant, at its sole cost and expense, may install (i) identification signage on the monument sign outside the front entrance to the Building (which monument sign shall be installed by Landlord at its sole cost prior to the Rent Commencement Date), and (ii) all exterior signage on the Building permitted by the City of South San Francisco, including on those elevations of the Building facing Highway 101 and Oyster Point Boulevard, so long as such signage is consistent with that certain Master Signage Program dated December 2012 and prepared by DES Architects + Engineers (collectively, " **Tenant Signage** "); provided, however, in no event shall Tenant's Signage include an "Objectionable Name," as that term is defined in Section 23.3 ,. All such signage shall be subject to Tenant's obtaining all required governmental approvals. All permitted signs shall be maintained by Tenant at its expense in a

first-class and safe condition and appearance. Upon the expiration or earlier termination of this Lease, Tenant shall remove all of its signs at Tenant's sole cost and expense. The graphics, materials, color, design, lettering, lighting, size, illumination, specifications and exact location of Tenant's Signage (collectively, the " **Sign Specifications** ") shall be subject to the prior written approval of Landlord, which approval shall not be unreasonably withheld, conditioned or delayed, and shall be consistent and compatible with the quality and nature of the Project. Tenant hereby acknowledges that, notwithstanding Landlord's approval of Tenant's Signage, Landlord has made no representation or warranty to Tenant with respect to the probability of obtaining all necessary governmental approvals and permits for Tenant's Signage. In the event Tenant does not receive the necessary governmental approvals and permits for Tenant's Signage, Tenant's and Landlord's rights and obligations under the remaining terms of this Lease shall be unaffected. Except as required by applicable law, Landlord shall not install any other signage on the Building. If Landlord elects to install a multi-tenant identification sign at the entrance to the Project, Tenant shall be entitled to install its name on such sign (subject to availability on a pro-rata basis based on the relative square footages leased by the tenants of the Project), at Tenant's sole cost and expense.

23.2 **Objectionable Name** . Tenant's Signage shall not include a name or logo that relates to an entity that is of a character or reputation, or is associated with a political faction or orientation, that is inconsistent with the quality of the Project, or that would otherwise reasonably offend a landlord of the Comparable Buildings (an " **Objectionable Name** "). Landlord agrees that each of "Five Prime Therapeutics, Inc.," “Five Prime Therapeutics,” “FivePrime” and “Five Prime” and the tagline “Protein Medicines for Life” in connection with any of the foregoing is not an Objectionable Name.

23.3 **Prohibited Signage and Other Items** . Any signs, notices, logos, pictures, names or advertisements that are installed and that have not been separately approved by Landlord may be removed without notice by Landlord at the sole expense of Tenant. Landlord may in its reasonable discretion require the removal of any signs, window coverings, or blinds (even if the same are located behind the Landlord-approved window coverings for the Building), or other items reasonably visible from the exterior of the Premises or Building.

24. COMPLIANCE WITH LAW. Tenant shall not do anything or suffer anything to be done in or about the Premises or the Project that will in any way conflict with any law, statute, ordinance or other governmental rule, regulation or requirement now in force or that may hereafter be enacted or promulgated. At its sole cost and expense, Tenant shall promptly comply with all such governmental measures pertaining to Tenant’s use of the Premises. Should any standard or regulation now or hereafter be imposed on Landlord or Tenant by a state, federal or local governmental body charged with the establishment, regulation and enforcement of occupational, health or safety standards for employers, employees, landlords or tenants, then Tenant agrees, at its sole cost and expense, to comply promptly with such standards or regulations. Tenant shall be responsible, at its sole cost and expense, to make all alterations to the Building and Premises as are required to comply with the governmental rules, regulations, requirements or standards described in this Article 24 pertaining to Tenant’s use of the Premises. The judgment of any court of competent jurisdiction or the admission of Tenant in any judicial action, regardless of whether Landlord is a party thereto, that Tenant has violated any of said governmental measures, shall be conclusive of that fact as between Landlord and Tenant. Tenant's obligations under this Article 24 are subject to the limitation in Section 10.2 .

For purposes of Section 1938 of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Project, Building and Premises have not undergone inspection by a Certified Access Specialist (CASp).

As required by Section 1938(e) of the California Civil Code, Landlord hereby states as follows: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." In furtherance of the foregoing, Landlord and Tenant hereby agree as follows: (a) any CASp inspection requested by Tenant shall be conducted, at Tenant's sole cost and expense, by a CASp approved in advance by Landlord; and (b) Tenant shall be responsible, at

Tenant's sole cost and expense, to make any modifications to the Premises that it deems to be required as a result of any such CASp inspection.

25. LATE CHARGES. If any installment of Rent or any other sum due from Tenant shall not be received by Landlord or Landlord's designee within five (5) business days after Tenant's receipt of written notice from Landlord that said amount is delinquent, then Tenant shall pay to Landlord a late charge equal to five percent (5%) of the overdue amount plus any reasonable attorneys' fees incurred by Landlord by reason of Tenant's failure to pay Rent and/or other charges when due hereunder. The late charge shall be deemed Additional Rent and the right to require it shall be in addition to all of Landlord's other rights and remedies hereunder or at law and shall not be construed as liquidated damages or as limiting Landlord's remedies in any manner. In addition to the late charge described above, any Rent or other amounts owing hereunder that are not paid within ten (10) business days after Tenant's receipt of written notice that said amount is delinquent shall bear interest from the date when due until paid at a rate per annum equal to the lesser of (i) the annual "Bank Prime Loan" rate cited in the Federal Reserve Statistical Release Publication G.13(415), published on the first Tuesday of each calendar month (or such other comparable index as Landlord and Tenant shall reasonably agree upon if such rate ceases to be published) plus four (4) percentage points, and (ii) the highest rate permitted by applicable law.

26. LANDLORD'S RIGHT TO CURE DEFAULT; PAYMENTS BY TENANT.

26.1 **Landlord's Cure** . All covenants and agreements to be kept or performed by Tenant under this Lease shall be performed by Tenant at Tenant's sole cost and expense and without any reduction of Rent, except to the extent, if any, otherwise expressly provided herein. If Tenant shall fail to perform any obligation under this Lease, and such failure shall continue in excess of the time allowed under Section 19.1.2 , unless a specific time period is otherwise stated in this Lease, Landlord may, but shall not be obligated to, make any such payment or perform any such act on Tenant's part without waiving its rights based upon any default of Tenant and without releasing Tenant from any obligations hereunder.

26.2 **Tenant's Reimbursement** . Except as may be specifically provided to the contrary in this Lease, Tenant shall pay to Landlord, upon delivery by Landlord to Tenant of statements therefor: (i) sums equal to expenditures reasonably made and obligations incurred by Landlord in connection with the remedying by Landlord of Tenant's defaults pursuant to the provisions of Section 26.1 ; (ii) sums equal to all losses, costs, liabilities, damages and expenses referred to in Article 10 ; and (iii) subject to Section 29.21 , sums equal to all expenditures made and obligations incurred by Landlord in collecting or attempting to collect the Rent or in enforcing or attempting to enforce any rights of Landlord under this Lease or pursuant to law, including all reasonable legal fees and other amounts so expended. Tenant's obligations under this Section 26.2 shall survive the expiration or sooner termination of the Lease Term.

27. ENTRY BY LANDLORD. Landlord reserves the right upon twenty four (24) hours' prior notice to Tenant (except in the case of an emergency) to enter the Premises at all reasonable times to (i) inspect them; (ii) show the Premises to prospective purchasers, or to current or prospective mortgagees, ground or underlying lessors or insurers or, during the last nine (9) months of the Lease Term, to prospective tenants; (iii) post notices of non-responsibility (to the extent applicable pursuant to then applicable law); or (iv) repair the Premises or the Building, or for structural repairs to the Building or the Building's systems and equipment as provided under this Lease. Landlord may make any such entries without the abatement of Rent, except as otherwise provided in this Lease, and may take such reasonable steps as required to accomplish the stated purposes. In an Emergency, Landlord shall have the right to use any means that Landlord may deem proper to open the doors in and to the Premises. Any entry into the Premises by Landlord in the manner hereinbefore described shall not be deemed to be a forcible or unlawful entry into, or a detainer of, the Premises, or an actual or constructive eviction of Tenant from any portion of the Premises. Landlord shall use commercially reasonable efforts to minimize any interference with Tenant's use of or access to the Premises in connection with any such entry and shall comply with Tenant's reasonable security measures. Without limiting the foregoing, except in an emergency, Landlord shall not enter into any portion of the Premises identified to Landlord as an area containing sensitive business information unless accompanied by a representative of Tenant. Landlord shall hold confidential any information regarding Tenant's business that it may learn as a result of any such entry.

28. TENANT PARKING. Tenant shall have the right, without the payment of any parking charge or fee (other than as a reimbursement of operating expenses to the extent allowed pursuant to the terms or Article 4), commencing

on the Rent Commencement Date, to use the amount of parking set forth in Section 9 of the Summary, in the on-site parking lot and garage that serves the Building, and to the exclusive use of the five (5) dedicated visitor parking spaces as set forth on **Exhibit A-1**. Tenant shall abide by all reasonable rules and regulations that are prescribed from time to time for the orderly operation and use of the parking facility where the parking passes are located (including any sticker or other identification system established by Landlord and the prohibition of vehicle repair and maintenance activities in the parking facilities) and for the dedicated parking spaces, and shall cooperate in seeing that Tenant's employees and visitors also comply with such rules and regulations. Tenant's use of the Project parking facility and dedicated parking spaces shall be at Tenant's sole risk and Tenant acknowledges and agrees that Landlord shall have no liability whatsoever for damage to the vehicles of Tenant, its employees and/or visitors, or for other personal injury or property damage or theft relating to or connected with the parking rights granted herein or any of Tenant's, its employees' and/or visitors' use of the parking facilities or dedicated parking spaces.

29. MISCELLANEOUS PROVISIONS.

29.1 **Interpretation** . The words " **Landlord** " and " **Tenant** " as used herein shall include the plural as well as the singular. The necessary grammatical changes required to make the provisions hereof apply either to corporations or partnerships or individuals, men or women, as the case may require, shall in all cases be assumed as though in each case fully expressed. The captions of Articles and Sections are for convenience only and shall not be deemed to limit, construe, affect or alter the meaning of such Articles and Sections. In this Lease, unless otherwise specified: (a) the words “include” and “including” shall be construed to be followed by the words “without limitation”; (b) the word “or” shall not be deemed to be used in the exclusive sense and shall instead be used in the inclusive sense to mean “and/or”; (c) words such as “herein”, “hereof”, and “hereunder” refer to this Lease as a whole and not merely to the particular provision in which such words appear; and (d) except as otherwise indicated, all references in this Lease to “Articles,” “Sections” and “Exhibits” are intended to refer to Articles of this Lease, Sections of this Lease and Exhibits to this Lease.

29.2 **Binding Effect** . Subject to all other provisions of this Lease, each of the covenants, conditions and provisions of this Lease shall extend to and shall, as the case may require, bind or inure to the benefit not only of Landlord and of Tenant, but also of their respective heirs, personal representatives, successors or assigns, provided this clause shall not permit any assignment by Tenant contrary to the provisions of Article 14 of this Lease.

29.3 **No Air Rights** . No rights to any view or to light or air over any property, whether belonging to Landlord or any other person, are granted to Tenant by this Lease. If at any time any windows of the Premises are temporarily darkened or the light or view therefrom is obstructed by reason of any repairs, improvements, maintenance or cleaning in or about the Project, the same shall be without liability to Landlord and without any reduction or diminution of Tenant's obligations under this Lease.

29.4 **Modification of Lease** . Should any current or prospective mortgagee or ground lessor for the Building or Project require a modification of this Lease, which modification will not cause an increased cost or expense to Tenant or in any other way materially and adversely change the rights and obligations of Tenant hereunder or interfere with Tenant's use of the Premises, then and in such event, Tenant agrees that this Lease may be so modified and agrees to execute whatever documents are reasonably required therefor and to deliver the same to Landlord within ten (10) business days following a request therefor. At the request of Landlord or any mortgagee or ground lessor, Tenant agrees to execute a short form of Lease and deliver the same to Landlord within ten (10) business days following the request therefor.

29.5 **Transfer of Landlord's Interest** . Tenant acknowledges that Landlord has the right to transfer all or any portion of its interest in the Project or Building and in this Lease, and Tenant agrees that in the event of any such transfer, Landlord shall automatically be released from all liability under this Lease and Tenant agrees to look solely to such transferee for the performance of Landlord's obligations hereunder accruing after the date of transfer provided such transferee shall have fully assumed and agreed in writing to be liable for all obligations of this Lease to be performed by Landlord, including the return of any security deposit, and Tenant shall attorn to such transferee.

29.6 **Prohibition Against Recording** . Except as provided in Section 29.4 of this Lease, neither this Lease, nor any memorandum, affidavit or other writing with respect thereto, shall be recorded by Tenant or by anyone acting through, under or on behalf of Tenant.

29.7 **Landlord's Title** . Landlord's title is and always shall be paramount to the title of Tenant. Nothing herein contained shall empower Tenant to do any act which can, shall or may encumber the title of Landlord.

29.8 **Relationship of Parties** . Nothing contained in this Lease shall be deemed or construed by the parties hereto or by any third party to create the relationship of principal and agent, partnership, joint venturer or any association between Landlord and Tenant.

29.9 **Payment under Protest** . If Tenant in good faith disputes any amounts billed by Landlord, other than (i) Base Rent, (ii) Tenant's Share of Direct Expenses (as to which Tenant may exercise its rights under Section 4.6 , above), Tenant may make payment of such amounts under protest, and reserve all of its rights with respect to such amounts (the " **Disputed Amounts** "). Landlord and Tenant shall meet and confer to discuss the Disputed Amounts and attempt, in good faith, to resolve the particular dispute. If, despite such good faith efforts, Landlord and Tenant are unable to reach agreement regarding the Disputed Amounts, either party may submit the matter to binding arbitration under the JAMS Streamlined Arbitration Rules & Procedures. The non-prevailing party, as determined by JAMS, will be responsible to pay all fees and costs incurred in connection with the JAMS procedure, as well as all other costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party. This Section 29.9 shall not apply to claims relating to Landlord's exercise of any unlawful detainer rights pursuant to California law or rights or remedies used by Landlord to gain possession of the Premises or terminate Lessee's right of possession to the Premises.

29.10 **Time of Essence** . Time is of the essence with respect to the performance of every provision of this Lease in which time of performance is a factor.

29.11 **Partial Invalidity** . If any term, provision or condition contained in this Lease shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term, provision or condition to persons or circumstances other than those with respect to which it is invalid or unenforceable, shall not be affected thereby, and each and every other term, provision and condition of this Lease shall be valid and enforceable to the fullest extent possible permitted by law.

29.12 **No Warranty** . In executing and delivering this Lease, Tenant has not relied on any representations, including, but not limited to, any representation as to the amount of any item comprising Additional Rent or the amount of the Additional Rent in the aggregate or that Landlord is furnishing the same services to other tenants, at all, on the same level or on the same basis, or any warranty or any statement of Landlord which is not set forth herein or in one or more of the exhibits attached hereto.

29.13 **Landlord Exculpation** . The liability of Landlord or the Landlord Parties to Tenant for any default by Landlord under this Lease or arising in connection herewith or with Landlord's operation, management, leasing, repair, renovation, alteration or any other matter relating to the Project or the Premises shall be limited solely and exclusively to the interest of Landlord in the Project, including any rental, condemnation, sales and insurance proceeds received by Landlord or the Landlord Parties in connection with the Project, Building or Premises. No Landlord Parties (other than Landlord) shall have any personal liability therefor, and Tenant hereby expressly waives and releases such liability on behalf of itself and all persons claiming by, through or under Tenant. The limitations of liability contained in this Section 29.13 shall inure to the benefit of Landlord's and the Landlord Parties' present and future partners, beneficiaries, officers, directors, trustees, shareholders, agents and employees, and their respective partners, heirs, successors and assigns. Under no circumstances shall any present or future partner of Landlord (if Landlord is a partnership), or trustee or beneficiary (if Landlord or any partner of Landlord is a trust), have any liability for the performance of Landlord's obligations under this Lease. Notwithstanding any contrary provision herein, neither Landlord nor the Landlord Parties shall be liable under any circumstances for injury or damage to, or interference with, Tenant's business, including loss of profits, loss of rents or other revenues, loss of business opportunity, loss of goodwill or loss of use, in each case, however occurring, or loss to inventory, scientific research, scientific experiments, laboratory animals, products, specimens, samples, and/or scientific, business, accounting and other records of every kind and description kept at the premises and any and all income derived or derivable therefrom.

29.14 **Entire Agreement** . It is understood and acknowledged that there are no oral agreements between the Parties affecting this Lease and this Lease constitutes the Parties' entire agreement with respect to the leasing of the Premises and supersedes and cancels any and all previous negotiations, arrangements, brochures, agreements and

understandings, if any, between the Parties or displayed by Landlord to Tenant with respect to the subject matter thereof, and none thereof shall be used to interpret or construe this Lease. None of the terms, covenants, conditions or provisions of this Lease can be modified, deleted or added to except in writing signed by the Parties.

29.15 **Right to Lease**. Landlord reserves the absolute right to effect such other tenancies in the Project as Landlord in the exercise of its sole business judgment shall determine to best promote the interests of the Building or Project. Tenant does not rely on the fact, nor does Landlord represent, that any specific tenant or type or number of tenants shall, during the Lease Term, occupy any space in the Project.

29.16 **Force Majeure**. Any prevention, delay or stoppage due to strikes, lockouts, labor disputes, acts of God, acts of war, terrorist acts, inability to obtain services, labor, or materials or reasonable substitutes therefor, governmental actions, civil commotions, fire or other casualty, and other causes beyond the reasonable control of the Party obligated to perform, except with respect to the obligations imposed with regard to Rent and other charges to be paid by Tenant pursuant to this Lease (collectively, a " **Force Majeure** "), notwithstanding anything to the contrary contained in this Lease, shall excuse the performance of such Party for a period equal to any such prevention, delay or stoppage and, therefore, if this Lease specifies a time period for performance of an obligation of either Party, that time period shall be extended by the period of any delay in such Party's performance caused by a Force Majeure, provided, however, the foregoing delays shall not apply to Tenant's termination rights hereunder.

29.17 **Intentionally Omitted**.

29.18 **Notices**. All notices, demands, statements, designations, approvals or other communications (collectively, " **Notices** ") given or required to be given by either Party to the other hereunder or by law shall be in writing, shall be (A) sent by United States certified or registered mail, postage prepaid, return receipt requested (" **Mail** "), (B) delivered by a nationally recognized overnight courier, or (C) delivered personally. Any Notice shall be sent, transmitted, or delivered, as the case may be, to Tenant at the appropriate address set forth in Section 10 of the Summary, or to such other place as Tenant may from time to time designate in a Notice to Landlord, or to Landlord at the addresses set forth below, or to such other places as Landlord may from time to time designate in a Notice to Tenant. Any Notice will be deemed given (i) three (3) business days after the date it is posted if sent by Mail, (ii) the date the overnight courier delivery is made, or (iii) the date personal delivery is made. As of the Execution Date, any Notices to Landlord must be sent, transmitted, or delivered, as the case may be, to the following addresses:

HCP, Inc.
1920 Main Street, Suite 1200
Irvine, CA 92614
Attention: Legal Department

with a copy to:

HCP Life Science Estates
950 Tower Lane, Suite 1650
Foster City, CA 94404
Attention: Jonathan M. Bergschneider

and

Allen Matkins Leck Gamble Mallory & Natsis LLP
1901 Avenue of the Stars, Suite 1800
Los Angeles, California 90067
Attention: Anton N. Natsis, Esq.

29.19 **Joint and Several**. If there is more than one tenant, the obligations imposed upon Tenant under this Lease shall be joint and several.

29.20 **Authority** . If Tenant is a corporation, trust or partnership, Tenant hereby represents and warrants that Tenant is a duly formed and existing entity qualified to do business in the State of California and that Tenant has full right and authority to execute and deliver this Lease and that each person signing on behalf of Tenant is authorized to do so.

29.21 **Attorneys' Fees** . In the event that either Landlord or Tenant should bring suit for the possession of the Premises, for the recovery of any sum due under this Lease, or because of the breach of any provision of this Lease or for any other relief against the other, then all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing Party therein shall be paid to the prevailing Party by the other Party, which obligation on the part of the other Party shall be deemed to have accrued on the date of the commencement of such action and shall be enforceable whether or not the action is prosecuted to judgment.

29.22 **Governing Law; WAIVER OF TRIAL BY JURY** . This Lease and all claims relating to or arising out of this Lease or the breach thereof shall be governed by and construed in accordance with the laws of the State of California without reference to its conflict of laws principles. IN ANY ACTION OR PROCEEDING ARISING HEREFROM, LANDLORD AND TENANT HEREBY CONSENT TO (I) THE JURISDICTION OF ANY COMPETENT COURT WITHIN THE STATE OF CALIFORNIA, (II) SERVICE OF PROCESS BY ANY MEANS AUTHORIZED BY CALIFORNIA LAW, AND (III) IN THE INTEREST OF SAVING TIME AND EXPENSE, TRIAL WITHOUT A JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY EITHER OF THE PARTIES HERETO AGAINST THE OTHER OR THEIR SUCCESSORS IN RESPECT OF ANY MATTER ARISING OUT OF OR IN CONNECTION WITH THIS LEASE, THE RELATIONSHIP OF LANDLORD AND TENANT, TENANT'S USE OR OCCUPANCY OF THE PREMISES, AND/OR ANY CLAIM FOR INJURY OR DAMAGE, OR ANY EMERGENCY OR STATUTORY REMEDY. IN THE EVENT LANDLORD COMMENCES ANY SUMMARY PROCEEDINGS OR ACTION FOR NONPAYMENT OF BASE RENT OR ADDITIONAL RENT, TENANT SHALL NOT INTERPOSE ANY COUNTERCLAIM OF ANY NATURE OR DESCRIPTION (UNLESS SUCH COUNTERCLAIM SHALL BE MANDATORY) IN ANY SUCH PROCEEDING OR ACTION, BUT SHALL BE RELEGATED TO AN INDEPENDENT ACTION AT LAW.

29.23 **Submission of Lease** . Submission of this instrument for examination or signature by Tenant does not constitute a reservation of, option for or option to lease, and it is not effective as a lease or otherwise until execution and delivery by both Landlord and Tenant.

29.24 **Brokers** . Landlord and Tenant hereby warrant to each other that they have had no dealings with any real estate broker or agent in connection with the negotiation of this Lease, excepting only the real estate brokers or agents specified in Section 12 of the Summary (the " **Brokers** "), and that they know of no other real estate broker or agent who is entitled to a commission in connection with this Lease. Each Party agrees to indemnify and defend the other Party against and hold the other Party harmless from any and all claims, demands, losses, liabilities, lawsuits, judgments, costs and expenses (including reasonable attorneys' fees) with respect to any leasing commission or equivalent compensation alleged to be owing on account of any dealings with any real estate broker or agent, other than the Brokers, occurring by, through, or under the indemnifying Party. The terms of this Section 29.24 shall survive the expiration or earlier termination of the Lease Term.

29.25 **Independent Covenants** . This Lease shall be construed as though the covenants herein between Landlord and Tenant are independent and not dependent and Tenant hereby expressly waives the benefit of any statute to the contrary and agrees that if Landlord fails to perform its obligations set forth herein, Tenant shall not be entitled to make any repairs or perform any acts hereunder at Landlord's expense or to any setoff of the Rent or other amounts owing hereunder against Landlord.

29.26 **Project or Building Name, Address and Signage** . Landlord shall have the right at any time to change the name and/or address of the Project or Building (and Landlord shall reimburse Tenant its actual, reasonable costs incurred as a result of such change, if any) and, subject to Section 23.1 , to install, affix and maintain any and all signs on the exterior and on the interior of the Project as Landlord may, in Landlord's sole discretion, desire. Tenant shall not use the name of the Project or Building or use pictures or illustrations of the Project or Building in advertising or other publicity or for any purpose other than as the address of the business to be conducted by Tenant in the Premises, without the prior written consent of Landlord.

29.27 **Counterparts** . This Lease may be executed in counterparts with the same effect as if both Parties had executed the same document. Both counterparts shall be construed together and shall constitute a single lease.

29.28 **Good Faith** . Except (i) for matters for which there is a standard of consent or discretion specifically set forth in this Lease; (ii) matters that could have an adverse effect on the Building Structure or the Building Systems, or that could affect the exterior appearance of the Building, or (iii) matters covered by Article 4 (Additional Rent), or Article 19 (Defaults; Remedies) (collectively, the " **Excepted Matters** "), any time the consent of Landlord or Tenant is required, such consent shall not be unreasonably withheld or delayed, and, except with regard to the Excepted Matters, whenever this Lease grants Landlord or Tenant the right to take action, exercise discretion, establish rules and regulations or make an allocation or other determination, Landlord and Tenant shall act reasonably and in good faith.

29.29 **Development of the Project** .

29.29.1 **Subdivision** . Landlord reserves the right to subdivide all or a portion of the buildings and Common Areas, so long as the same does not interfere with Tenant's use of or access to the Premises or Tenant's parking rights. Tenant agrees to execute and deliver, upon demand by Landlord and in the form requested by Landlord, any additional documents needed to conform this Lease to the circumstances resulting from a subdivision and any all maps in connection therewith, so long as the same does not increase Tenant's obligations or decrease Tenant's rights under this Lease. Notwithstanding anything to the contrary set forth in this Lease, the separate ownership of any buildings and/or Common Areas by an entity other than Landlord shall not affect the calculation of Direct Expenses or Tenant's payment of Tenant's Share of Direct Expenses.

29.29.2 **Construction of Property and Other Improvements** . Tenant acknowledges that portions of the Project may be under construction following Tenant's occupancy of the Premises, and that such construction may result in levels of noise, dust, obstruction of access, etc. that are in excess of that present in a fully constructed project. Landlord shall use commercially reasonable efforts to minimize the impact of such construction. Tenant hereby waives any and all rent offsets or claims of constructive eviction that may arise in connection with such construction, so long as the same does not interfere with Tenant's use of or access to the Premises or Tenant's parking rights.

29.30 **No Violation** . Tenant hereby warrants and represents that neither its execution of nor performance under this Lease shall cause Tenant to be in violation of any agreement, instrument, contract, law, rule or regulation by which Tenant is bound, and Tenant shall protect, defend, indemnify and hold Landlord harmless against any claims, demands, losses, damages, liabilities, costs and expenses, including reasonable attorneys' fees and costs, arising from Tenant's breach of this warranty and representation.

29.31 **Transportation Management** . Tenant shall fully comply with all present or future programs intended to manage parking, transportation or traffic in and around the Project and/or the Building, and in connection therewith, Tenant shall take responsible action for the transportation planning and management of all employees located at the Premises by working directly with Landlord, any governmental transportation management organization or any other transportation-related committees or entities. Such programs may include, without limitation: (i) restrictions on the number of peak-hour vehicle trips generated by Tenant; (ii) increased vehicle occupancy; (iii) implementation of an in-house ridesharing program and an employee transportation coordinator; (iv) working with employees and any Project, Building or area-wide ridesharing program manager; (v) instituting employer-sponsored incentives (financial or in-kind) to encourage employees to rideshare; and (vi) utilizing flexible work shifts for employees.

29.32 **Securities Law Filings and Disclosure** . Landlord acknowledges that (a) Tenant will file a Current Report on Form 8-K (the " **Current Report** ") with the Securities and Exchange Commission (the " **SEC** ") within four (4) business days following the Execution Date, (b) the Current Report will include a description of the terms and conditions of this Lease, (c) a copy of this Lease will be attached as an exhibit to the Current Report or a subsequently filed Quarterly Report on Form 10-Q or Annual Report on Form 10-K filed with the SEC, and (d) Tenant will not seek confidential treatment of any of the terms and conditions of this Lease, notwithstanding any provision of this Lease to the contrary. Landlord hereby consents to Tenant's filing of the Current Report and the filing of this Lease as an

exhibit to any SEC filing requiring such filing and waives any obligation of Tenant to seek confidential treatment of any of the terms and conditions of this Lease in connection with any such filing.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Lease to be executed as of the Execution Date.

LANDLORD :

HCP OYSTER POINT III LLC,
a Delaware limited liability company

By: /s/ Jonathan M. Bergschneider
Jonathan M. Bergschneider
Executive Vice President

TENANT :

FIVE PRIME THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Lewis T. Williams
Lewis T. Williams
President and Chief Executive Officer

EXHIBIT A

OUTLINE OF PREMISES; PROJECT SITE PLAN

EXHIBIT A-1

TENANT RESERVED PARKING SPACES

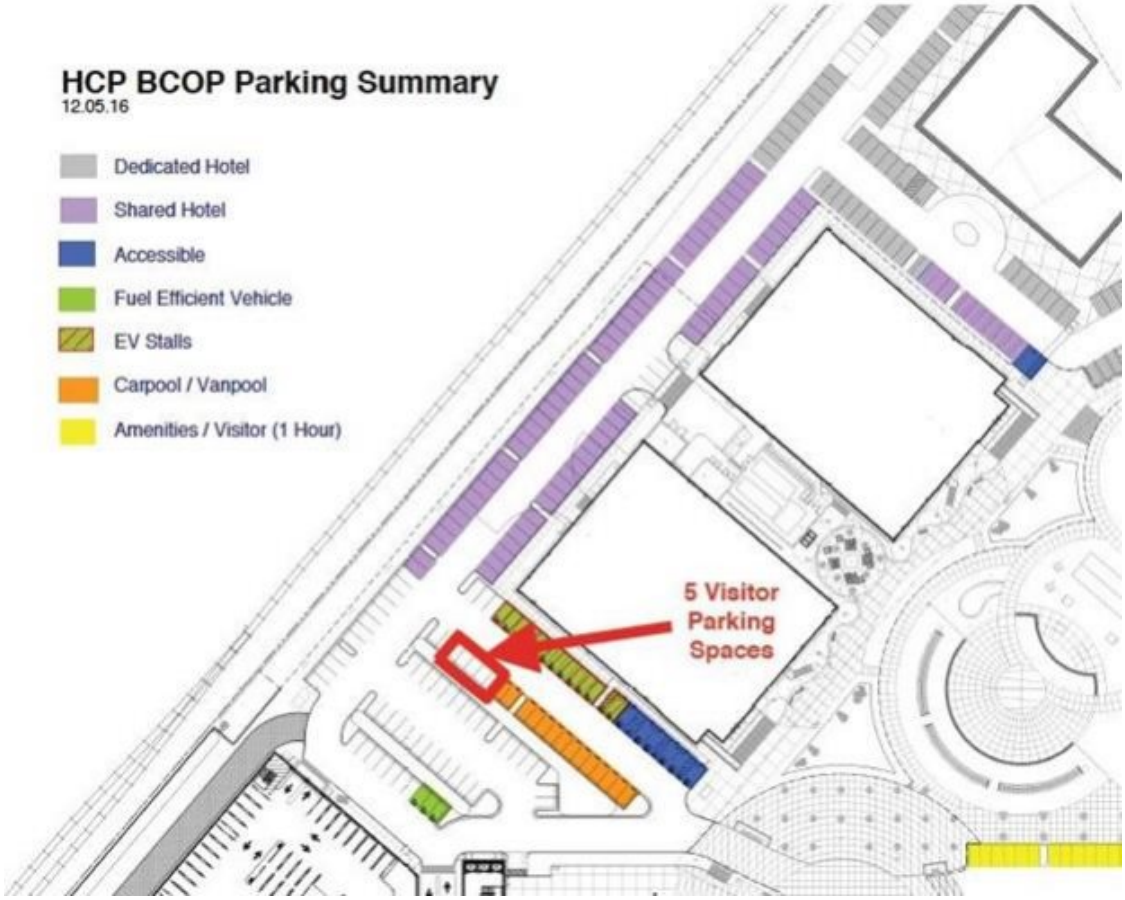

EXHIBIT B

TENANT WORK LETTER

1. **Defined Terms** . As used in this Tenant Work Letter, the following capitalized terms have the following meanings:

(a) **Approved TI Plans** : Plans and specifications prepared by the applicable Architect for the Tenant Improvements and approved by Landlord and Tenant in accordance with Paragraph 2 of this Tenant Work Letter, subject to further modification from time to time to the extent provided in and in accordance with such Paragraph 2.

(b) **Architect** : Landlord shall engage DGA with respect to any Tenant Improvements which Landlord is to cause to be constructed pursuant to this Tenant Work Letter.

(c) **Tenant Change Request** : See definition in Paragraph 2(c)(ii) hereof.

(d) **Final TI Working Drawings** : See definition in Paragraph 2(a) hereof.

(e) **General Contractor** : The general contractor reasonably selected by Landlord with respect to Landlord's TI Work. Tenant shall have no right to direct or control such General Contractor.

(f) **Landlord's TI Work** : Any Tenant Improvements which Landlord is to construct or install pursuant to this Tenant Work Letter or by mutual agreement of Landlord and Tenant from time to time.

(g) **Project Manager** . Project Management Advisors, Inc., or any other project manager designated by Landlord in its reasonable discretion from time to time to act in a supervisory, oversight, project management or other similar capacity on behalf of Landlord in connection with the design and/or construction of the Tenant Improvements.

(h) **Punch List Work** : Minor corrections of construction or decoration details, and minor mechanical adjustments, that are required in order to cause any applicable portion of the Tenant Improvements or Landlord's Work as constructed to conform to the Approved TI Plans or this Tenant Work Letter in all material respects and that do not materially interfere with Tenant's use or occupancy of the Building and the Premises.

(i) **Substantial Completion Certificate** : See definition in Paragraph 3(a) hereof.

(j) **Tenant Delay** : Any of the following types of delay in the completion of construction of Landlord's TI Work (but in each instance, only to the extent that any of the following has actually and proximately caused substantial completion of Landlord's TI Work to be delayed):

(i) Any delay resulting from Tenant's failure to furnish, in a timely manner, information reasonably requested by Landlord or by Landlord's Project Manager in connection with the design or construction of Landlord's TI Work, or from Tenant's failure to approve in a timely manner any matters requiring approval by Tenant;

(ii) Any delay resulting from Tenant Change Requests initiated by Tenant, including any delay resulting from the need to revise any drawings or

obtain further governmental approvals as a result of any such Tenant Change Request; or

(iii) Any delay caused by Tenant (or Tenant's contractors, agents or employees) materially interfering with the performance of Landlord's TI Work, provided that Landlord shall have given Tenant prompt notice of such material interference and, before the first time a Tenant Delay is deemed to have occurred as a result of such delay, such interference has continued for more than twenty-four (24) hours after Tenant's receipt of such notice.

(k) **Tenant Improvements** : The improvements to or within the Building shown on the Approved TI Plans from time to time and to be constructed by Landlord pursuant to the Lease and this Tenant Work Letter. The term "Tenant Improvements" does not include the improvements existing in the Building and Premises on the Effective Date.

(l) **Unavoidable Delays** : Delays due to acts of God, acts of public agencies, labor disputes, strikes, fires, freight embargoes, inability (despite the exercise of due diligence) to obtain supplies, materials, fuels or permits, or other causes or contingencies (excluding financial inability) beyond the reasonable control of Landlord or Tenant, as applicable. Landlord shall use commercially reasonable efforts to provide Tenant with prompt notice of any Unavoidable Delays.

(m) Capitalized terms not otherwise defined in this Tenant Work Letter shall have the definitions set forth in the Lease.

2. **Plans and Construction** . Landlord and Tenant shall comply with the procedures set forth in this Paragraph 2 in preparing, delivering and approving matters relating to the Tenant Improvements.

(a) Approved Plans and Working Drawings for Tenant Improvements . Tenant shall promptly and diligently work with the Architect to cause to be prepared and delivered to Landlord for approval (which approval shall not be unreasonably withheld, conditioned or delayed by Landlord) proposed schematic plans and outline specifications for the Tenant Improvements. Landlord shall reimburse the Architect directly for the cost of the initial schematic plans and outline specifications and one revision thereof, and such costs shall not be charged to the Tenant Improvement Allowance. Following mutual approval of such proposed schematic plans and outline specifications by Landlord and by Tenant (as so approved, the " **Approved Schematic Plans** "), Tenant shall then work with the Architect to cause to be prepared, promptly and diligently (assuming timely delivery by Landlord of any information and decisions required to be furnished or made by Landlord in order to permit preparation of final working drawings, all of which information and decisions Landlord will deliver promptly and with reasonable diligence), and delivered to Landlord for approval (which approval shall not be unreasonably withheld, conditioned or delayed by Landlord) final detailed working drawings and specifications for the Tenant Improvements, including (without limitation) any applicable life safety, mechanical, electrical and plumbing working drawings and final architectural drawings (collectively, " **Final TI Working Drawings** "), which Final TI Working Drawings shall substantially conform to the Approved Schematic Plans. Upon receipt from Tenant of proposed schematic plans and outline specifications, proposed Final TI Working Drawings, any other plans and specifications, or any revisions or resubmittals of any of the foregoing, as applicable, Landlord shall promptly and diligently (and in all events within 10 business days after receipt in the case of an initial submittal of schematic plans and outline specifications or proposed Final TI Working Drawings, and within 5 business days after receipt in the case of any other plans and specifications or any revisions or resubmittals of any of the foregoing) either approve such proposed schematic plans and outline specifications or proposed Final TI Working Drawings, as applicable, or set forth in writing

with particularity any changes necessary to bring the aspects of such proposed schematic plans and outline specifications or proposed Final TI Working Drawings into a form which will be reasonably acceptable to Landlord. Upon approval of the Final TI Working Drawings by Landlord and Tenant, the Final TI Working Drawings shall constitute the **"Approved TI Plans,"** superseding (to the extent of any inconsistencies) any inconsistent features of the previously existing Approved Schematic Plans. Tenant shall respond to any request for information or approval of plans or drawings from Landlord or Architect within five (5) business days. Tenant acknowledges that the Tenant Improvements will include the items set forth on Schedule 2 to this Exhibit B, in order to allow the Premises to achieve a LEED "Silver" certification level.

(b) Cost of Improvements . " **Cost of Improvement** " shall mean, with respect to any item or component for which a cost must be determined in order to allocate such cost, or an increase in such cost, to Tenant pursuant to this Tenant Work Letter, the sum of the following (unless otherwise agreed in writing by Landlord and Tenant with respect to any specific item or component or any category of items or components): (i) all sums paid to contractors or subcontractors for labor and materials furnished in connection with construction of such item or component; (ii) all costs, expenses, payments, fees and charges (other than penalties) paid to or at the direction of any city, county or other governmental or quasi-governmental authority or agency which are required to be paid in order to obtain all necessary governmental permits, licenses, inspections and approvals relating to construction of such item or component; (iii) engineering and architectural fees for services rendered in connection with the design and construction of such item or component (including, but not limited to, the Architect for such item or component and an electrical engineer, mechanical engineer, structural engineer and civil engineer, if applicable); (iv) sales and use taxes; (v) testing and inspection costs; (vi) the cost of power, water and other utility facilities and the cost of collection and removal of debris required in connection with construction of such item or component; (vii) costs for builder's risk insurance; and (viii) all other "hard" and "soft" costs incurred in the construction of such item or component in accordance with the Approved TI Plans (if applicable) and this Tenant Work Letter; provided that the Cost of Improvements shall not include any internal or third-party costs incurred by Landlord except as provided in Section 2(e) .

(c) **Construction of Landlord's TI Work** . Following completion of the Approved TI Plans, Landlord shall apply for and use reasonable efforts to obtain the necessary permits and approvals to allow construction of all Tenant Improvements. Upon receipt of such permits and approvals, Landlord shall, at Tenant's expense (subject to Landlord's payment of the Tenant Improvement Allowance), construct and complete the Tenant Improvements substantially in accordance with the Approved TI Plans, subject to Unavoidable Delays and Tenant Delays (if any). Landlord shall use commercially reasonable efforts to complete the Tenant Improvements on or before December 1, 2017, subject to Unavoidable Delays and Tenant Delays (if any). Such construction of the Tenant Improvements and Landlord's Work shall be performed in a neat, good and workmanlike manner, free of defects, using new materials and equipment of good quality, and shall materially conform to all applicable laws, rules, regulations, codes, ordinances, requirements, covenants, conditions and restrictions applicable thereto in force at the time such work is completed. Landlord shall cause Hathaway Dinwiddie, Landmark Builders and any other potential general contractors to bid on general conditions and fee for construction of the Tenant Improvements and provide an estimate for the direct cost of the Tenant Improvements. All bids will be opened together with Landlord selecting the general contractor to construct the Tenant Improvements, subject to the reasonable approval of Tenant. Tenant shall have the right to value engineer the proposed Tenant Improvements before the final bid is selected. Tenant shall also have the right to approve all subcontractors engaged by the General Contractor, which approval shall not be unreasonably withheld, conditioned or delayed. Landlord shall enter into a stipulated sum or guaranteed maximum price construction

contract with the General Contractor in the amount of the construction costs approved by Landlord and Tenant.

(d) **Changes** .

(i) If Landlord determines at any time that changes in the Final TI Working Drawings or in any other aspect of the Approved TI Plans relating to any item of Landlord's TI Work are required as a result of applicable law or governmental requirements, or are required as a result of unanticipated conditions encountered in the course of construction, then Landlord shall promptly (A) advise Tenant of such circumstances and (B) at Tenant's sole cost and expense, subject to Landlord's payment of the Tenant Improvement Allowance, cause revised Final TI Working Drawings to be prepared by the Architect and submitted to Tenant, for Tenant's approval, which shall not be unreasonably withheld. Failure of Tenant to deliver to Landlord written notice of disapproval and specification of such required changes on or before any deadline reasonably specified by Landlord (which shall not be less than three (3) business days after delivery thereof to Tenant) shall constitute and be deemed to be a Tenant Delay to the extent Landlord is delayed in completing Landlord's TI Work.

(ii) If Tenant at any time desires any changes, alterations or additions to the Final TI Working Drawings, Tenant shall submit a detailed written request to Landlord specifying such changes, alterations or additions (a " **Tenant Change Request** "). Upon receipt of any such request, Landlord, within five (5) business days, shall promptly notify Tenant of (A) whether the matters proposed in the Tenant Change Request are approved by Landlord (which approval shall not be unreasonably withheld, conditioned or delayed by Landlord), (B) Landlord's estimate of the number of days of delay, if any, which shall be caused in the construction of the Tenant Improvements by such Tenant Change Request if implemented (including, without limitation, delays due to the need to obtain any revised plans or drawings and any governmental approvals), and (C) Landlord's estimate of the increase, if any, which shall occur in the cost of design, permitting, project management and construction of the Tenant Improvements affected by such Tenant Change Request if such Tenant Change Request is implemented (including, but not limited to, any costs of compliance with laws or governmental regulations that become applicable because of the implementation of the Tenant Change Request). If Landlord approves the Tenant Change Request and Tenant notifies Landlord in writing, within three (3) business days after receipt of such notice from Landlord, of Tenant's approval of the Tenant Change Request (including the estimated delays and cost increases, if any, described in Landlord's notice), then Landlord shall cause such Tenant Change Request to be implemented and Tenant shall be responsible for all actual costs or cost increases resulting from or attributable to the implementation of the Tenant Change Request, and any delays resulting therefrom shall be deemed to be a Tenant Delay (subject to Landlord's payment of the Tenant Improvement Allowance). If Tenant fails to notify Landlord in writing of Tenant's approval of such Tenant Change Request within said three (3) business day period, then such Tenant Change Request shall be deemed to be withdrawn and shall be of no further effect.

(e) **Project Management** . Unless and until revoked by Landlord by written notice delivered to Tenant, Landlord hereby (i) delegates to Project Manager the authority to exercise all approval rights, supervisory rights and other rights or powers of Landlord under this Tenant Work Letter with respect to the design and construction of the Tenant Improvements, and (ii) requests that Tenant work with Project Manager with respect to any logistical or other coordination matters arising in the course of construction of the Tenant Improvements, including monitoring Tenant's compliance with its obligations under this Tenant Work

Letter and under the Lease with respect to the design and construction of the Tenant Improvements. Tenant acknowledges the foregoing delegation and request, and agrees to cooperate reasonably with Project Manager as Landlord's representative pursuant to such delegation and request. The fees and charges of Project Manager for such services shall be at Tenant's sole expense, subject to Landlord's payment of the Tenant Improvement Allowance. Such fees and charges shall be payable monthly, based on the aggregate amount of $3.84 per rentable square foot of the Premises (subject to increase if Tenant expends more than $145 per square foot of the Premises on construction of the Tenant Improvements), and, unless Tenant expends more than $145 per rentable square foot of the Premises on construction of the Tenant Improvements, shall not exceed $444,276.00. In the event Tenant expends more than $145 per rentable square foot, such fees shall be increased by 2.65% of the amount expended above $145 per rentable square foot.

3. **Completion** .

(a) When Landlord receives written certification from Architect that construction of the Tenant Improvements and Landlord's Work has been completed in accordance with the Approved TI Plans and Section 3(e) below (except for Punch List Work), Landlord shall prepare and deliver to Tenant a certificate (or separate certificates for the Tenant Improvements and Landlord's Work) signed by Landlord, Architect and General Contractor (the " **Substantial Completion Certificate** ") (i) certifying that the construction of the Tenant Improvements and Landlord's Work has been substantially completed in a good and workmanlike manner in accordance with the Approved TI Plans and Section 3(e) below in all material respects, subject only to completion of Punch List Work, and specifying the date of that completion, and (ii) certifying that the Tenant Improvements and Landlord's Work comply in all material respects with all laws, rules, regulations, codes, ordinances, requirements, covenants, conditions and restrictions applicable thereto at the time of such delivery, including the ADA and all building codes. Upon receipt by Tenant of the Substantial Completion Certificate and tender of possession of the Premises by Landlord to Tenant, and receipt of any certificate of occupancy or its legal equivalent, or other required sign-offs from any applicable governmental authority, allowing the legal occupancy of the Premises, the Tenant Improvements will be deemed delivered to Tenant and "Ready for Occupancy" for all purposes of the Lease (subject to Landlord's continuing obligations with respect to any Punch List Work, and to any other express obligations of Landlord under the Lease or this Tenant Work Letter with respect to such Tenant Improvements).

(b) Immediately prior to delivery of the Substantial Completion Certificate for the Tenant Improvements, Project Manager or other representatives of Landlord shall conduct one or more "walkthroughs" of the Building with Tenant and Tenant's representatives, to identify any items of Punch List Work that may require correction and to prepare a joint punch list reflecting any such items, following which Landlord shall diligently complete the Punch List Work reflected in such joint punch list. The Punch List Work shall be attached to the Substantial Completion Certificate, and shall not include damage caused by Tenant or any of Tenant's agents in connection with any work performed by Tenant in the Premises, or required as a result of Tenant's move-in to the Premises. At any time within thirty (30) days after delivery of such Substantial Completion Certificate, Tenant shall be entitled to submit one or more lists to Landlord supplementing such joint punch list by specifying any additional items of Punch List Work to be performed on the applicable Tenant Improvements and Landlord's Work, and upon receipt of such list(s), Landlord shall diligently complete such additional Punch List Work. Promptly after Landlord provides Tenant with the Substantial Completion Certificate and completes all applicable Punch List Work for the Building, Landlord shall cause the recordation of a Notice of Completion (as defined in the California Civil Code) with respect to the Tenant Improvements.

(c) All construction, product and equipment warranties and guaranties obtained by Landlord with respect to the Tenant Improvements and Landlord's Work shall, to the extent

reasonably obtainable, include a provision that such warranties and guaranties shall also run to the benefit of Tenant, and Landlord shall cooperate with Tenant in a commercially reasonable manner to assist in enforcing all such warranties and guaranties for the benefit of Tenant.

(d) Notwithstanding any other provisions of this Tenant Work Letter or of the Lease, if Landlord is delayed in substantially completing any of the Tenant Improvements as a result of any Tenant Delay, and if the Rent Commencement Date is being determined under clause (i) of Section 3.2 of the Lease Summary, then notwithstanding any other provision of the Lease to the contrary, then the Premises shall be deemed to have been Ready for Occupancy on the date the Premises would have been Ready for Occupancy absent such Tenant Delay.

(e) Notwithstanding any other provisions of this Tenant Work Letter or of the Lease, Landlord shall be responsible, at Landlord's sole cost and expense, and without deduction from the Tenant Improvement Allowance, to construct and deliver the Base Building and "Warm Shell" components of the Premises (" **Landlord's Work** "), which shall consist of the items set forth on Schedule 1 to this Exhibit B (the " **Warm Shell Schedule** ").

4. **Payment of Costs** .

(a) **Tenant Improvement Allowance** . Subject to any restrictions, conditions or limitations expressly set forth in this Tenant Work Letter or in the Lease or as otherwise expressly provided by mutual written agreement of Landlord and Tenant, the cost of construction of the Tenant Improvements shall be paid or reimbursed by Landlord up to a maximum amount as set forth in Section 5 of the Summary to the Lease (the " **Tenant Improvement Allowance** "), which amount is being made available by Landlord to be applied towards the Cost of Improvements for the construction of the Tenant Improvements in the Premises. Tenant shall be responsible, at its sole cost and expense, for payment of the entire Cost of Improvements of the Tenant Improvements in excess of the Tenant Improvement Allowance, including (but not limited to) any costs or cost increases incurred as a result of delays (unless caused by Landlord), governmental requirements or unanticipated conditions (unless caused by Landlord), and for payment of any and all costs and expenses relating to any alterations, additions, improvements, furniture, furnishings, equipment, fixtures and personal property items which are not eligible for application of Tenant Improvement Allowance funds under the restrictions expressly set forth below in this paragraph, but Tenant shall be entitled to use or apply the entire Tenant Improvement Allowance toward the Cost of Improvements of the Tenant Improvements (subject to any applicable restrictions, conditions, limitations, reductions or charges set forth in the Lease or in this Tenant Work Letter) prior to being required to expend any of Tenant's own funds for the Tenant Improvements. The funding of the Tenant Improvement Allowance shall be made on a monthly basis or at other convenient intervals mutually approved by Landlord and Tenant and in all other respects shall be based on such commercially reasonable disbursement conditions and procedures as Landlord, Project Manager and Landlord's lender (if any) may reasonably prescribe. Notwithstanding the foregoing provisions, under no circumstances shall the Tenant Improvement Allowance or any portion thereof be used or useable by Tenant for any moving or relocation expenses of Tenant, or for any Cost of Improvement (or any other cost or expense) associated with any moveable furniture or trade fixtures, personal property or any other item or element which, under the applicable provisions of the Lease, will not become Landlord's property and remain with the Building upon expiration or termination of the Lease. Notwithstanding anything to the contrary herein, the Tenant Improvements shall not include (and Landlord shall be solely responsible for and the Tenant Improvement Allowance shall not be used for) the following: (a) costs incurred due to the presence of any Hazardous Materials in the Premises, if any; (b) costs to bring the Project into compliance with Applicable Laws to the extent required in order to allow Tenant to obtain a certificate of occupancy or its legal

equivalent, for the Premises for the Permitted Use assuming a normal and customary office occupancy density; (c) construction costs in excess of the contract amount stated in the contract with the General Contractor, as approved by Tenant (not to be unreasonably withheld), except for increases set forth in change orders approved by Tenant; (d) wages, labor and overhead for overtime and premium time unless approved by Tenant (which approval shall not be unreasonably withheld, conditioned or delayed); (e) attorneys' fees incurred in connection with negotiation of construction contracts, and attorneys' fees, experts' fees and other costs in connection with disputes with third parties; (f) interest and other costs of financing construction costs; (g) costs incurred as a consequence construction defects or default by a contractor; (h) costs as a consequence of casualties; and (i) penalties and late charges attributable to Landlord's failure to pay construction costs.

(b) **Tenant Funds**. Any additional funds required to complete the cost of the work, that are in excess of or elected by the Tenant to be used from the Tenant Improvement Allowance, shall be considered "Tenant Funds". Tenant acknowledges that an estimate of the required Tenant Funds will be determined at the time Landlord enters into the agreed upon Guaranteed Maximum Price construction contract (" **GMP** ") and establishes the Project Budget. Tenant further acknowledges that such amount is an estimate and exact costs will not be known until project closeout. Tenant shall be required, on a monthly progress payment basis, to pay a percentage of each required payment to the contractor under the GMP, based on the ratio between the amount of the Tenant Funds and the total estimated cost of the work.

5. **No Agency**. Nothing contained in this Tenant Work Letter shall make or constitute Tenant as the agent of Landlord.

6. **Tenant Access**. Provided that Tenant and its agents do not interfere with Contactor's work in the Building and the Premises (including by the use of non-union vendors without prior coordination with Landlord), Contractor and Landlord shall allow Tenant access to the Premises at least thirty (30) days prior to the Substantial Completion of the Landlord's TI Work without payment of Rent for the purpose of Tenant installing equipment or fixtures (including Tenant's data and telephone equipment) in the Premises and preparing the Premises for occupancy. Prior to Tenant's entry into the Premises as permitted by the terms of this Section 6, Tenant shall submit a schedule to Landlord and Contractor, for their approval, which schedule shall detail the timing and purpose of Tenant's entry. Tenant shall hold Landlord harmless from and indemnify, protect and defend Landlord against any loss or damage to the Building or Premises and against injury to any persons caused by Tenant's actions pursuant to this Section 6.

7. **Miscellaneous**. All references in this Tenant Work Letter to a number of days shall be construed to refer to calendar days, unless otherwise specified herein. In all instances where Landlord's or Tenant's approval is required, if no written notice of disapproval is given within the applicable time period, at the end of that period Landlord or Tenant shall be deemed to have given approval (unless the provision requiring Landlord's or Tenant's approval expressly states that non-response is deemed to be a disapproval or withdrawal of the pending action or request, in which event such express statement shall be controlling over the general statement set forth in this sentence) and the next succeeding time period shall commence. If any item requiring approval is disapproved by Landlord or Tenant (as applicable) in a timely manner, the procedure for preparation of that item and approval shall be repeated. Landlord hereby acknowledges that Tenant shall not be required to restore the initial Tenant Improvements constructed in the Premises pursuant to the terms of this Tenant Work Letter upon the termination of the Lease.

8. **Time Deadlines**. Tenant shall use commercially reasonable, good faith, efforts and all due diligence to cooperate with the Architect, General Contractor and Landlord to complete all phases of the construction drawings set forth in this Tenant Work Letter and the permitting process and to receive the permits as soon as possible after the execution of the. The applicable dates for approval of items, plans and drawings as described in this Tenant Work Letter are set forth and further elaborated upon

in Schedule 3 to this Exhibit B attached hereto (the " **Time Deadlines** "), attached hereto. Tenant agrees to utilize commercially reasonable efforts to comply with the Time Deadlines.

9. **Rooftop Space** . Tenant hereby acknowledges that to the extent either (i) any portion of the Tenant Improvements, or (ii) any of Tenant's equipment installed in the Premises, requires a portion of the roof to be utilized by Tenant, that Tenant shall only be permitted to utilize that certain portion of the roof as designated on Schedule 4 to this Exhibit B (the " **Rooftop Space** ").

10. **Standard Tenant Improvement Package Specifications** . Tenant hereby acknowledges that the Tenant Improvements are subject to the specifications set forth on Schedule 5 to this **Exhibit B** .

SCHEDULE 1 TO EXHIBIT B

BASE BUILDING "WARM SHELL" DELIVERY CONDITION

The Cove at Oyster Point
Buildings 1 & 2
121 & 111 Oyster Point Boulevard
South San Francisco, CA 94080
Warm Shell Landlord Delivery Condition

DESCRIPTION
SITEWORK
1.Exterior hardscape and landscape, including site lighting, perimeter sidewalks, street curbs, miscellaneous site furnishings, and bio-retention basins
2.Surface parking lot and parking structure parking for allocation amongst tenants per lease agreement
3.Campus electrical vehicle charging stations for pro rata allocation amongst Tenants
4.Exterior amenities space including all hardscape and landscape, lighting, and recreational infrastructure (volleyball/basketball sport court, bocce ball, trellis)
5.Exterior bike racks
6.Bus stop wind screens for local commuter shuttle service
7.Service yard foundation, structure, covered enclosure, and waterproofing for trash containers and dedicated nitrogen storage area for allocation amongst tenants per lease agreement
8.Foundation and enclosure for Landlord provided diesel powered emergency generator
9.Loading dock with at-grade shipping/receiving area with two (2) hydraulic scissor lifts
10.Infrastructure/systems (tanks, generator, piping, etc.), as required
STRUCTURE
1.Pile supported structural slab-on-grade foundation system consisting of steel-reinforced concrete auger-cast piles, pile caps, and horizontal grade beams
2.First floor building slab to be provided AFTER Tenant Improvement design is complete
3.Steel superstructure consisting of steel columns, girders, beams, and concrete slab on composite metal deck, with live load capacity of 125 psf (reducible)
4.Type II A construction, code required primary structural fireproofing

DESCRIPTION
5. Slab edge fire safing
6.Lateral seismic system utilizing buckling-restrained braced frames. Importance factor is 1.0
7.Roof deck framing with live load capacity of 20 psf
8.Mechanical platform and roof penthouse with live load capacity of 75 psf
9.Roof screen
10.Floor to floor height of 17', all floors
11.Framed openings for Base Building utility risers
12.Stairs and stair enclosures per code requirements, including enclosure doors, handrails, and guardrails. Roof penthouse access for one (1) set of stairs
13.Window washing davit bases and arms
14.Miscellaneous metals items and/or concrete pads for Base Building equipment
15.Supplemental structural members for additional tenant loads, vibration criteria, or tenant standards, as required
16.Supplemental structural members for tenant roof equipment, including but not limited to galvanized beams on platform, grating, rails, and all associated fireproofing, as required
17.Miscellaneous metals items and/or concrete pads for Tenant equipment, as required
ROOFING
1.60 MIL single-ply thermoplastic polyolefin (TPO) white or gray roof membrane
2.Rigid insulation, flashing, and sealants
3.Roofing penetrations for Base Building equipment/systems
4.Walkway pads along roof perimeter, outside of screened area
5.Roofing penetrations for Tenant equipment/systems, as required
6.Roofing alterations due to Tenant changes, as required
EXTERIOR
1.Non load-bearing glazed aluminum curtain wall and glass fiber reinforced concrete (GFRC) panel building enclosure system
2.Building entrances and openings
COMMON AREAS
1.Build-out of Main Lobby
2.Stair enclosures painted at all building levels
3.Two (2) B-Occupancy Chemical Storage Rooms totaling approximately 425 sf with 1-hour fire rated assembly, depressed pit (18"), and 100% outside air ventilation for allocation amongst tenants per lease agreement.
4.Main Electrical Room

DESCRIPTION
5. Emergency Electrical Room
6.Domestic Pump Room
7.Fire Booster Pump Room
8.Two (2) Elevator Control Rooms
9.Telecommunications Main Point of Entry (MPOE) Room
10.Service Yard/Loading Dock Area, including space for trash enclosure, nitrogen storage, and generator enclosure
11.Usage of Amenities Space including food service, fitness center, and recreational area (located in Building 3)
ELEVATORS
1.Two (2) passenger elevators; 3,500 lbs., 350 fpm
2.One (1) freight elevator; 5,000 lbs., 200 fpm
3.Recessed elevator pits for three (3) elevators
TENANT AREAS
1.Restroom Cores: one (1) set per floor including Men's and Women's Restrooms with (1) ADA shower each with bench and lockers, ceramic tile floors and wet walls, solid surface countertops, floor mounted metal partitions, hard lid ceiling, down lights and ADA low-flow plumbing fixtures
2.Janitor Closet – one (1) per floor
3.Stud wall framing at restroom core to underside of slab
4.Fire-rated assembly at restroom core to 6" above ceiling
5.Electrical Room – one (1) per floor consisting of concrete floor, unfinished drywall and taped walls, no ceiling
6.Intermediate Distribution Frame (IDF) Room – one (1) per floor for floors 2-4 consisting of concrete floor, unfinished drywall and taped walls, no ceiling
7.Accessible "Patio" – Fourth floor only. Landlord-maintained retractable davit arms stored in enclosure on Tenant patio.
8.Freight elevator lobby on floors 2-4
9.Finishes at common corridors on floors with multiple Tenants
10.Shaft enclosures for Base Building system risers
11.Modifications to core areas to accommodate Tenant requirements, if necessary
FIRE PROTECTION
1.Fire booster pump room including fire department connection, alarm valve, and fire sprinkler booster pump (connected to standby power)
2.Wet fire protection system (risers, Core area risers, distribution piping, and sprinkler heads)
3.Stair risers, distribution piping, and sprinkler heads for shell and core coverage

DESCRIPTION
4. Primary distribution and sprinkler heads adequate for “Ordinary Hazard, Group 2” for core and shell coverage
5.Fire extinguisher cabinets at core areas
6.Fire safing at Base Building vertical penetrations, including penetrations for mechanical, electrical, and plumbing systems
7.Fire safing at Tenant vertical penetrations, including penetrations for mechanical, electrical, and plumbing systems, as required

PLUMBING
1.Building storm and overflow drainage system, including site underground storm sewer system and connection to storm sewer mains
2.Domestic water service with backflow prevention and Base Building risers to Tenant spaces
3.Domestic water booster pump
4.Building lab waste consisting of risers and stubs in Tenant space
5.Lab waste sewer connection to sanitary sewer, lab waste sampling port at connection
6.Building sanitary sewer service with piping distribution to restroom cores and risers stubbed in Tenant space
7.Domestic sanitary sewer connection to street
8.Main water meter and irrigation meter
9.One (1) roof mounted natural gas water heater serving all Restrooms
10.Core restroom plumbing fixtures compliant with accessibility requirements
NATURAL GAS
1.Medium pressure natural gas service to Building
2.Natural gas riser to the roof and service to Base Building boilers
3.Natural gas riser to the roof capped for future use
HEATING, VENTILATION, AIR CONDITIONING
1.Two (2) 85,000 cfm 100% outside air roof mounted air handlers serving Tenant lab spaces, allocation to Tenant space: standard 21,250 cfm per unit per floor (connected to standby power)
2.Two (2) 30,000 cfm supply/return roof mounted air handlers serving Tenant office spaces, allocation to Tenant space: standard 7,500 cfm per unit per floor
3.Two (2) 4,000 MBH input gas fired hot water boilers (connected to standby power)
4.Two (2) 385 ton centrifugal chillers

5. Two (2) 385 ton cooling towers
6.Secondary mechanical equipment, including pumps, roof ducting, piping, valves, manifolds, etc. to support Base Building mechanical systems
7.Hot water pipe risers, stubbed in Tenant space
8.Reheat coils within core areas
9.Vertical supply air duct risers
10.Vertical return air duct risers
11.Supply air duct distribution, VAV terminals, equipment connections, insulation, air terminals, dampers, hangers, etc. within core areas
12.Two (2) roof mounted dilution lab exhaust fan systems with 85,000 cfm capacity each, allocation to Tenant space: standard 21,250 cfm per system per floor (connected to standby power)
13.Exhaust air duct distribution, exhaust air valves, equipment connections, insulation, air terminals, dampers, hangers, etc. within core areas
14.Restroom exhaust for Base Building restrooms
15.Ventilation system for Base Building Electrical Room
16.Exhaust fan, side wall grille supply, and fire smoke dampers for ventilation of Base Building Electrical Rooms on each floor
17.Building Management System (BMS) for core area and Landlord infrastructure
ELECTRICAL
1.Site campus medium voltage distribution system with connection to PG&E grid
2.5,000 amp 480/277V Base Building substation with underground primary feeder to campus main switchgear
3.Standard power bus duct risers providing 400 amps per floor
4.One (1) 1500 kW 480/277V diesel standby power generator with 1,350 gallon sub-base diesel fuel tank
5.Standby power bus duct risers providing 188 kW per floor
6.Automatic transfer switch for Tenant load
7.Lighting and power distribution for core areas
8.Base Building common area life safety emergency lighting/signage
9.Distributed Antenna System (DAS) consisting of head-end system, roof-mounted antenna, and 2” conduit risers in stair shafts. No coverage within Tenant premises.
FIRE ALARM
1.Base Building fire alarm system with devices in core areas (connected to standby power)
2.Fire Alarm Termination Cabinet (FATC) within each Electrical Room
TELEPHONE/DATA
1.Underground local fiber optic & telephone conduit only to Main Point of Entry (MPOE) Room

2. Two (2) 4” conduit risers from MPOE to Intermediate Distribution Frame (IDF) Room on each floor
3.Sleeves for future conduit riser from IDF Rooms to the roof; Landlord approval required for usage
4.Campus telecommunications loop consisting of two (2) 4” conduits, linking existing and future buildings on campus
5.One (1) 4” conduit security communications loop
6.Two (2) 4” conduits connecting Building 1 MPOE Room with Building 2 MPOE Room
SECURITY
1.Card access at Building entries
2.Video surveillance and intercom system at entrance and receiving doors of the Building
3.Main Lobby desk for future security operations. Security guard scope TBD

SCHEDULE 2 TO EXHIBIT B

LEED REQUIREMENTS

The following is a list of LEED prerequisites and credits that all tenants are required to meet compliance for their associated tenant-occupied spaces beyond the current Core & Shell project scope. By signing this lease, tenants are agreeing to comply with all of the outlined requirements.

-Water Efficiency Prerequisite 1 and Credit 3, Water Use Reduction

- All toilets in the core or those that are tenant-installed shall be dual-flush toilets or "high-efficiency," using 1.28 gallons per flush (gpf) or less.
- All urinals shall be waterless or ultra low-flow e.g., 0.125gpf or less.
- Bathroom faucets are required to have flow restrictors limiting flow to .5 gallons per minute (gpm). Kitchen and breakroom faucets to allow 2.0 gpm.

- Energy and Atmosphere Prerequisite 2, Minimum Energy Performance, and Credit 1, Optimize Energy Performance

- Envelope must meet the following requirements:
  - Walls: U = 0.082
  - Roof: U = 0.039
  - Curtain Glazing: U = 0.27, SHGC = 0.29 (Viracon)
- Mechanical (Based on B3) systems must comply with the following:
  - Chiller Efficiency: 0.549 kw/ton
  - Boiler Efficiency: 93%
- Plumbing (Based on B3) must comply with the following:
  - Water heater efficiency: 96%
- Lighting requirements are as follows:
  - Office Spaces > 250 ft ^{2} : 0.75 w/sf
  - Office Spaces <= 250 ft ^{2} : 1.0 w/sf
  - Lab Spaces: 1.4 w/sf

-Energy and Atmosphere Credit 4, Enhanced Refrigerant Management

- Tenants should specify HVAC systems that minimize refrigerant impact by avoiding refrigerants entirely or using systems that reduce their harmful impacts.
- Tenants should not install or retain fire suppression systems with CFCs, HCFCs, or halons.

-Energy and Atmosphere Credit 5, Measurement & Verification

- Tenants will be required to submeter

-Indoor Environmental Quality Prerequisite 1, Minimum Indoor Air Quality (IAQ) Performance

- Tenant-installed mechanical ventilation systems must meet the requirements of ASHRAE 62.1-2007 sections 4-7.

-Indoor Environmental Quality Credit 1, Outdoor Air Delivery Monitoring

- For mechanical ventilation systems that predominantly serve densely occupied spaces (those with a design occupant density greater than or equal to 25 people per 1000 sq. ft), tenants shall install a CO2 sensor within each densely occupied space.
- For all other mechanical ventilation systems, provide an outdoor airflow measurement device capable of measuring the minimum outdoor airflow rate at all expected system operating conditions within 15 percent of the design minimum outdoor air rate.

-Indoor Environmental Quality Credit 5, Indoor Chemical and Pollutant Source Control

- Walk off mats are installed at all building main entrances as part of the core and shell scope.

- All rooms that contain chemicals or pollutants (such as copy rooms, photo labs, laundry, and janitorial rooms) must be built with deck-to-deck full-height walls and self-closing doors, separate ventilation systems with minimum .50 cfm/sqft exhaust fans, and containment drains for appropriate disposal of hazardous liquids
- Tenants must also install MERV – 13 filters for all return and outside air intakes in regularly occupied mechanically ventilated spaces

-Indoor Environmental Quality Credit 6, Controllability of Systems - Thermal Comfort

- Tenants shall provide thermal and ventilation controls for:
    - At least 50 percent of the occupants that enable adjustment to suit individual needs and preferences & all shared multi-occupant spaces where transient groups must share controls.

-Indoor Environmental Quality Credit 7, Thermal Comfort - Design

- HVAC design must meet requirements of ASHRAE 55-2004, specifically in reference to air temperature, radiant temperature, humidity, and air speed

SCHEDULE 3 TO EXHIBIT B

STANDARD TENANT IMPROVEMENT PACKAGE SPECIFICATIONS

[[ATTACHED]]

SCHEDULE 4 TO EXHIBIT B

DESIGNATED ROOF ZONES

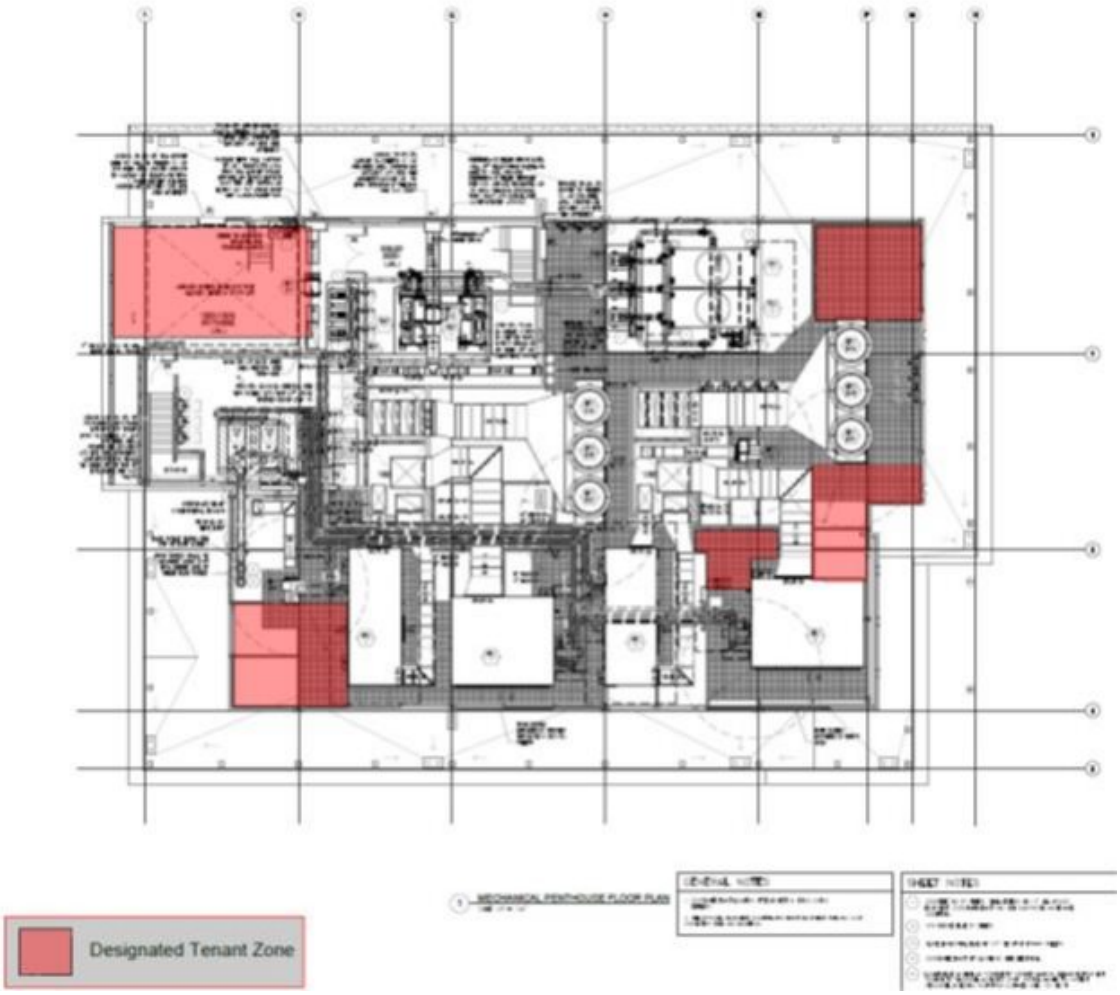

EXHIBIT C

NOTICE OF LEASE TERM DATES

To: _____
_____
_____
_____

Re: Lease dated _____, 20__ between _____, a _____ (" **Landlord** "), and _____, a _____ (" **Tenant** ") concerning Suite _____ on floor(s) _____ of the building located at _____, California.

Gentlemen:

In accordance with the Lease (the " **Lease** "), we wish to advise you and/or confirm as follows:

1. The Lease Term shall commence on or has commenced on _____ for a term of _____ ending on _____.

2. Rent commenced to accrue on _____, in the amount of _____.

3. If the Rent Commencement Date is other than the first day of the month, the first billing will contain a pro rata adjustment. Each billing thereafter, with the exception of the final billing, shall be for the full amount of the monthly installment as provided for in the Lease.

4. Your rent checks should be made payable to _____ at _____.

5. The number of rentable/usable square feet within the Premises is approximately _____ square feet.

6. Tenant's Share of the Building is 100%, subject to Section 6 of the Summary of Basic Lease Information.

"Landlord":

_____

a _____

By: _____

Its: _____

Agreed to and Accepted as
of _____, 20_ _.

"Tenant":

_____

a _____

By: _____

Its: _____

EXHIBIT D

FORM OF TENANT'S ESTOPPEL CERTIFICATE

The undersigned as Tenant under that certain Lease (the " **Lease** ") made and entered into as of _____, 20 _by and between _____ as Landlord, and the undersigned as Tenant, for Premises consisting of a portion of the building located at _____, California, certifies as follows:

1. Attached hereto as **Exhibit A** is a true and correct copy of the Lease and all amendments and modifications thereto. The documents contained in **Exhibit A** represent the entire agreement between the Parties as to the Premises.

2. The undersigned currently occupies the Premises described in the Lease, the Lease Term commenced on _____, and the Lease Term expires on _____, and the undersigned has no option to terminate or cancel the Lease or to purchase all or any part of the Premises, the Building and/or the Project, except as expressly set forth in the Lease.

3. Base Rent became payable on _____.

4. The Lease is in full force and effect and has not been modified, supplemented or amended in any way except as provided in **Exhibit A** .

5. Tenant has not transferred, assigned, or sublet any portion of the Premises nor entered into any license or concession agreements with respect thereto except as follows:

6. Tenant shall not modify the documents contained in **Exhibit A** without the prior written consent of Landlord's mortgagee , provided that Tenant has been informed of the identify of Landlord's mortgagee as provided in the Lease.

7. All monthly installments of Base Rent, all Additional Rent and all monthly installments of estimated Additional Rent have been paid when due through _____. The current monthly installment of Base Rent is $_____.

8. To Tenant's actual knowledge, without inquiry, all conditions of the Lease to be performed by Landlord necessary to the enforceability of the Lease have been satisfied and Landlord is not in default thereunder. In addition, the undersigned has not delivered any notice to Landlord regarding a default by Landlord thereunder. The Lease does not require Landlord to provide any rental concessions or to pay any leasing brokerage commissions except as expressly set forth therein.

9. No rental has been paid more than thirty (30) days in advance and no security has been deposited with Landlord except as provided in the Lease. Neither Landlord, nor its successors or assigns, shall in any event be liable or responsible for, or with respect to, the retention, application and/or return to Tenant of any security deposit paid to any prior landlord of the Premises, whether or not still held by any such prior landlord, unless and until the party from whom the security deposit is being sought, whether it be a lender, or any of its successors or assigns, has actually received for its own account, as landlord, the full amount of such security deposit.

10. To Tenant's actual knowledge, without inquiry, as of the date hereof, there are no existing defenses or offsets, or, to the undersigned's knowledge, claims or any basis for a claim, that the undersigned has against Landlord.

11. If Tenant is a corporation or partnership, Tenant hereby represents and warrants that Tenant is a duly formed and existing entity qualified to do business in California and that Tenant has full right and authority to execute and deliver this Estoppel Certificate and that each person signing on behalf of Tenant is authorized to do so.

12. There are no actions pending against the undersigned under the bankruptcy or similar laws of the United States or any state.

13. Tenant is in compliance with all federal, state and local laws, ordinances, rules and regulations affecting its use of the Premises, including those laws, ordinances, rules or regulations relating to hazardous or toxic materials. Tenant has never knowingly permitted its agents, employees or contractors to engage in the generation, manufacture, treatment, use, storage, disposal or discharge of any hazardous, toxic or dangerous waste, substance or material in, on, under or about the Project or the Premises or any adjacent premises or property in violation of any federal, state or local law, ordinance, rule or regulation.

14. To the undersigned's actual knowledge, all tenant improvement work to be performed by Landlord under the Lease has been completed in accordance with the Lease and has been accepted by the undersigned and all reimbursements and allowances due to the undersigned under the Lease in connection with any tenant improvement work have been paid in full. To Tenant's actual knowledge, all work (if any) in the common areas required by the Lease to be completed by Landlord has been completed and all parking spaces required by the Lease have been furnished and/or all parking ratios required by the Lease have been met.

The undersigned acknowledges that this Estoppel Certificate may be delivered to Landlord or to a prospective mortgagee or prospective purchaser, and acknowledges that said prospective mortgagee or prospective purchaser will be relying upon the statements contained herein in making the loan or acquiring the property of which the Premises are a part and that receipt by it of this certificate is a condition of making such loan or acquiring such property.

Executed at _____ on the ____ day of _____, 20__.

"Tenant":

_____

a _____

By: _____

Its: _____

By: _____

Its: _____

EXHIBIT E

ENVIRONMENTAL QUESTIONNAIRE

ENVIRONMENTAL QUESTIONNAIRE
FOR COMMERCIAL AND INDUSTRIAL PROPERTIES

Property Name: _____

Property Address: _____

Instructions : The following questionnaire is to be completed by the Lessee representative with knowledge of the planned operations for the specified building/location. Please print clearly and attach additional sheets as necessary.

1.0 PROCESS INFORMATION

Describe planned use, and include brief description of manufacturing processes employed.

_____

_____

_____

2.0 HAZARDOUS MATERIALS

Are hazardous materials used or stored? If so, continue with the next question. If not, go to Section 3.0.

2.1 Are any of the following materials handled on the Property?Yes ☐ No ☐

(A material is handled if it is used, generated, processed, produced, packaged, treated, stored, emitted, discharged, or disposed.) If so, complete this section. If this question is not applicable, skip this section and go on to Section 5.0.

☐ Explosives	☐ Fuels	☐ Oils
☐ Solvents	☐ Oxidizers	☐ Organics/Inorganics
☐ Acids	☐ Bases	☐ Pesticides
☐ Gases	☐ PCBs	☐ Radioactive Materials
☐ Other (please specify)		

2.2. If any of the groups of materials checked in Section 2.1, please list the specific material(s), use(s), and quantity of each chemical used or stored on the site in the Table below. If convenient, you may substitute a chemical inventory and list the uses of each of the chemicals in each category separately.

Material	Physical State (Solid, Liquid, or Gas)	Usage	Container Size	Number of Containers	Total Quantity

2.3. Describe the planned storage area location(s) for these materials. Please include site maps and drawings as appropriate.

3.0 HAZARDOUS WASTES

Are hazardous wastes generated? Yes ☐ No ☐

If yes, continue with the next question. If not, skip this section and go to section 4.0.

3.1 Are any of the following wastes generated, handled, or disposed of (where applicable) on the Property?

☐ Hazardous wastes ☐ Industrial Wastewater
☐ Waste oils ☐ PCBs
☐ Air emissions ☐ Sludges
☐ Regulated Wastes ☐ Other (please specify)

3.2. List and quantify the materials identified in Question 3-1 of this section.

WASTE GENERATED	RCRA listed Waste?	SOURCE	APPROXIMATE MONTHLY QUANTITY	WASTE CHARACTERIZATION	DISPOSITION

3.3. Please include name, location, and permit number (e.g. EPA ID No.) for transporter and disposal facility, if applicable). Attach separate pages as necessary.

Transporter/Disposal Facility Name	Facility Location	Transporter (I) or Disposal (D) Facility	Permit Number

3.4. Are pollution controls or monitoring employed in the process to prevent or minimize the release of wastes into the environment?Yes ☐ No ☐

3.5. If so, please describe.

4.0 USTS/ASTS

4.1 Are underground storage tanks (USTs), aboveground storage tanks (ASTs), or associated pipelines used for the storage of petroleum products, chemicals, or liquid wastes present on site (lease renewals) or required for planned operations (new tenants)?Yes___No___

If not, continue with section 5.0. If yes, please describe capacity, contents, age, type of the USTs or ASTs, as well any associated leak detection/spill prevention measures. Please attach additional pages if necessary.

Capacity	Contents	Year Installed	Type (Steel, Fiberglass, etc)	Associated Leak Detection / Spill Prevention Measures *

* Note: The following are examples of leak detection / spill prevention measures:

Integrity testing	Inventory reconciliation	Leak detection system
Overfill spill protection	Secondary containment	Cathodic protection

4.2. Please provide copies of written tank integrity test results and/or monitoring documentation, if available.

4.3. Is the UST/AST registered and permitted with the appropriate regulatory agencies?Yes ☐ No ☐
If so, please attach a copy of the required permits.

4.4. If this Questionnaire is being completed for a lease renewal, and if any of the USTs/ASTs have leaked, please state the substance released, the media(s) impacted (e.g., soil, water, asphalt, etc.), the actions taken, and all remedial responses to the incident.

_____

_____

_____

4.5. If this Questionnaire is being completed for a lease renewal, have USTs/ASTs been removed from the Property?Yes ☐ No ☐

If yes, please provide any official closure letters or reports and supporting documentation (e.g., analytical test results, remediation report results, etc.).

4.6. For Lease renewals, are there any above or below ground pipelines on site used to transfer chemicals or wastes?Yes ☐ No ☐

For new tenants, are installations of this type required for the planned operations?

Yes ☐ No ☐

If yes to either question, please describe.

_____

_____

_____

5.0 <u>ASBESTOS CONTAINING BUILDING MATERIALS</u>

Please be advised that an asbestos survey may have been performed at the Property. If provided, please review the information that identifies the locations of known asbestos containing material or presumed asbestos containing material. All personnel and appropriate subcontractors should be notified of the presence of these materials, and informed not to disturb these materials. Any activity that involves the disturbance or removal of these materials must be done by an appropriately trained individual/contractor.

6.0 REGULATORY

6.1. Does the operation have or require a National Pollutant Discharge Elimination System (NPDES) or equivalent permit?Yes ☐ No ☐
If so, please attach a copy of this permit.

6.2. Has a Hazardous Materials Business Plan been developed for the site?Yes ☐ No ☐
If so, please attach a copy.

CERTIFICATION

I am familiar with the real property described in this questionnaire. By signing below, I represent and warrant that the answers to the above questions are complete and accurate to the best of my knowledge. I also understand that Lessor will rely on the completeness and accuracy of my answers in assessing any environmental liability risks associated with the property.

Signature: _____

Name: _____

Title: _____

Date: _____

Telephone: _____

EXHIBIT F

TENANT'S PROPERTY

The following items, to the extent (i) not purchased with the Tenant Improvement Allowance or Additional Improvement Allowance, and (ii) not tied into the Base Building systems, shall be deemed "Tenant's Property":

1. All moveable furniture and equipment that is not "built-in".
2. Moveable lab casework (other than "built-in" lab casework), including moveable lab benches.
3. Servers, server racks and back-up batteries.
4. Furniture.
5. Portable fume hoods.
6. Biosafety cabinets.
7. Glass Washes.

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-3 No. 333-214411) of Five Prime Therapeutics, Inc., and
(2) Registration Statements (Form S-8 Nos. 333-19170, 333-202854, 333-194820, and 333-211216) pertaining to the 2013 Omnibus Incentive Plan and the 2013 Employee Stock Purchase Plan of Five Prime Therapeutics, Inc.;

of our reports dated February 24, 2017, with respect to the financial statements of Five Prime Therapeutics, Inc. and the effectiveness of internal control over financial reporting of Five Prime Therapeutics, Inc. included in this Annual Report (Form 10-K) of Five Prime Therapeutics, Inc. for the year ended December 31, 2016.

/s/ Ernst & Young LLP

San Jose, California
February 24, 2017

Exhibit 31.1

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Lewis T. Williams, certify that:

1. I have reviewed this annual report on Form 10-K of Five Prime Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 24, 2017

/s/ Lewis T. Williams
Lewis T. Williams
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF THE CHIEF FINANCIAL OFFICER
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Marc L. Belsky, certify that:

1. I have reviewed this annual report on Form 10-K of Five Prime Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 24, 2017

/s/ Marc L. Belsky
Marc L. Belsky
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Five Prime Therapeutics, Inc. ("Five Prime") for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Lewis T. Williams, President and Chief Executive Officer of Five Prime, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Five Prime.

Dated: February 24, 2017

/s/ Lewis T. Williams
Lewis T. Williams
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Five Prime Therapeutics, Inc. ("Five Prime") for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Marc L. Belsky, Senior Vice President and Chief Financial Officer of Five Prime, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Five Prime.

Dated: February 24, 2017

/s/ Marc L. Belsky
Marc L. Belsky
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)