UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ **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**

Commission file number 0-29889

RIGEL PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	**94-3248524** (IRS Employer Identification No.)
1180 Veterans Blvd. **South San Francisco, California** (Address of principal executive offices)	**94080** (Zip Code)

(650) 624-1100
(Registrant's telephone number, including area code)

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 $.001 per share	The Nasdaq Global 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 Section 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 (§232.405 of this chapter) 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 (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of 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 a check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act).

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

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

The approximate aggregate market value of the Common Stock held by non- affiliates of the registrant, based upon the closing price of the registrant's Common Stock as reported on the Nasdaq Global Market on June 30, 2016, the last business day of the registrant's most recently completed second fiscal quarter, was $210,660,442. Shares of the registrant's outstanding Common Stock held by each executive officer, director and affiliates of the registrant's outstanding Common Stock have been excluded. The determination of affiliate status for the purposes of this calculation is not necessarily a conclusive determination for other purposes.

As of March 1, 2017, there were 122,285,861 shares of the registrant's Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Items 10, 11, 12, 13 and 14 of Part III of this Annual Report on Form 10-K incorporate information by reference from the definitive proxy statement for the registrant's 2017 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

TABLE OF CONTENT S

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains statements indicating expectations about future performance and other forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act), Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act), and the Private Securities Litigation Reform Act of 1995, that involve risks and uncertainties. We usually use words such as "may," "will," "should," "could," "expect," "plan," "anticipate," "might," "believe," "estimate," "predict," "intend" or the negative of these terms or similar expressions to identify these forward- looking statements. These statements appear throughout this Annual Report on Form 10-K and are statements regarding our current intent, belief or expectation, primarily with respect to our operations and related industry developments. Examples of these statements include, but are not limited to, statements regarding the following: our business and scientific strategies; the progress of our product development programs, including clinical testing, and the timing of commencement and results thereof; our corporate collaborations, and revenues that may be received from collaborations and the timing of those potential payments; our drug discovery technologies; our research and development expenses; protection of our intellectual property; and sufficiency of our cash resources and need for additional capital. You should not place undue reliance on these forward-looking statements. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including as a result of the risks and uncertainties discussed under the heading "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K. A forward- looking statement speaks only as of the date on which it is made, and, except as required by law, we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

PART I

Item 1. Busines s

Overview

Rigel Pharmaceuticals, Inc. was incorporated in Delaware in June 1996, and is based in South San Francisco, California. We are a clinical-stage biotechnology company dedicated to the discovery and development of novel, targeted drugs in the therapeutic areas of immunology, oncology and immuno-oncology. Our pioneering research focuses on signaling pathways that are critical to disease mechanisms. Our current clinical programs include clinical studies of fostamatinib, an oral spleen tyrosine kinase (SYK) inhibitor in a number of indications. We completed and reported results from the FIT Phase 3 clinical program of fostamatinib in chronic immune thrombocytopenia (ITP). We are also conducting a Phase 2 clinical study with fostamatinib in autoimmune hemolytic anemia (AIHA) and a Phase 2 clinical study for IgA nephropathy (IgAN). In addition, we have two oncology product candidates in development with partners BerGenBio AS (BerGenBio) (Phase 2) and Daiichi Sankyo (Daiichi) (Phase 1).

Since the beginning of 2016, we have experienced the following significant business events:

- In February 2017, we completed an underwritten public offering in which we sold 23,000,000 shares of our common stock pursuant to an effective registration statement at a price to the public of $2.00 per share. We received net proceeds of approximately $43.0 million after deducting underwriting discounts and commissions and estimated offering expenses.

- In January 2017, we announced the following:
  i.) we completed the first cohort in the Phase 2 study of fostamatinib in IgAN; and
  ii.) we received $3.0 million from our immuno-oncology partnership with Bristol-Myers Squibb Company (BMS) in the fourth quarter of 2016 due to BMS identifying the TGF beta-receptor kinase inhibitor molecule for IND-enabling toxicology studies.

- In August 2016, we reported results from the first Phase 3 clinical trial for ITP and in October 2016, we reported the results for a second Phase 3 study in ITP, as well as the results for the Phase 3 open label extension study in ITP with fostamatinib. Data from the Phase 3 studies demonstrate a consistent fostamatinib response rate. In addition, we announced that Esteban Masuda, Ph.D. was promoted to Senior Vice President for Research and that Joseph Lasaga rejoined the Company as Vice President, Business Development and Alliance Management.

- In September 2016, we announced the following:
  i.) we reduced our workforce by 38% resulting in the elimination of 46 positions, mostly in the research area;
  ii.) Donald G. Payan, M.D. has retired from the board of directors and from his position as Executive Vice President and President of Discovery and Research, effective September 15, 2016; and
  iii.) Eldon C. Mayer III joined the Company as Executive Vice President and Chief Commercial Officer.

- In April 2016, we announced we had completed enrollment for the first two studies in our Phase 3 clinical program for forstamatinib in ITP.

- In March 2016, we announced the appointment of Anne-Marie Duliege, M.D., M.S. to the role of chief medical officer, replacing Elliott Grossbard, M.D., who retired from that position after 14 years with the Company.

- In February 2016, we announced that we initiated a Phase 2 clinical trial to evaluate fostamatinib as a potential treatment for AIHA.

- In January 2016, we announced that we completed patient enrollment of the first Phase 3 study with fostamatinib for the treatment of ITP.

Strategy

Our research team is focused on creating a portfolio of product candidates that may be developed as therapeutics for our own proprietary programs or for development by potential collaborative partners. We recognize that the product development process is subject to both high costs and a high risk of failure. We believe that identifying a variety of product candidates and working in conjunction with other pharmaceutical partners may minimize the risk of failure, fill the product pipeline gap at major pharmaceutical companies, and ultimately increase the likelihood of advancing clinical development and potential commercialization of the product candidates.

The key elements to our business and scientific strategy are to:

- *develop and commercialize fostamatinib in the United States where we believe a company our size can successfully compete;*
- *outlicense European and Asian rights to fostamatinib;*
- *develop and commercialize fostamatinib for possible additional indications;*
- *develop a diverse portfolio of drug candidates that address a focused brand of therapeutic indications or that represent significant market opportunities;*
- *utilize our discovery engine to discover and validate new product candidates in a focused range of therapeutic indications; and*
- *develop drug candidates and establish strategic collaborations with pharmaceutical and biotechnology companies to further develop and market our product candidates.*

Product Development Programs

Our product development portfolio features multiple novel, targeted drug candidates in the therapeutic areas of immunology, oncology and immuno-oncology.

Pipeline	Current Stage	Status
Fostamatinib—Oral SYK Inhibitor		
Immune Thrombocytopenic Purpura (ITP)	Phase 3	We completed and reported results from the two Phase 3 clinical studies in August 2016 and October 2016. We are also conducting a long-term open-label extension study of certain patients from the first two Phase 3 clinical studies and who opted to receive treatment with fostamatinib. We plan to submit the New Drug Application (NDA) with the U.S. Food and Drug Administration (FDA) in the first quarter of 2017 and would expect to receive a decision on approval from the FDA in the first quarter of 2018, with a potential commercial launch in the U.S. in the first half of 2018.
IgA Nephropathy (IgAN)	Phase 2	In January 2017, we announced that we completed the first cohort in the Phase 2 study of fostamatinib in IgAN. The Phase 2 study for the second cohort is currently enrolling patients and we expect to have data in the first part of 2018.

Autoimmune Hemolytic Anemia (AIHA)	Phase 2	The Phase 2 clinical trial continues to enroll patients with AIHA. The trial is a two-stage study and we expect to have results of the Stage 1 segment of the trial in 2017. With this data, we will evaluate the best way forward and potentially an expedited path for pursuing AIHA.

Clinical Stage Programs

Fostamatinib—Immune Thrombocytopenic Purpura

Disease background. Chronic ITP affects an estimated 60,000 to 125,000 people in the U.S. In patients with ITP, the immune system attacks and destroys the body's own blood platelets, which play an active role in blood clotting and healing. ITP patients can suffer extraordinary bruising, bleeding and fatigue as a result of low platelet counts. Current therapies for ITP include steroids, blood platelet production boosters that imitate thrombopoietin (TPOs) and splenectomy.

Orally-available SYK inhibitor program. Taken in tablet form, fostamatinib blocks the activation of SYK inside immune cells. ITP is typically characterized by the body producing antibodies that attach to healthy platelets in the blood stream. Immune cells recognize these antibodies and affix to them, which activates the SYK enzyme inside the immune cell, and triggers the destruction of the antibody and the attached platelet. When SYK is inhibited by fostamatinib, it interrupts this immune cell function and allows the platelets to escape destruction. The results of our Phase 2 clinical trial, in which fostamatinib was orally administered to sixteen adults with chronic ITP, published in *Blood*, showed that fostamatinib significantly increased the platelet counts of certain ITP patients, including those who had failed other currently available agents.

In October 2013, we met with the FDA for an end-of-Phase 2 meeting for fostamatinib in ITP. Based on that meeting, we designed a Phase 3 clinical program, called fostamatinib in thrombocytopenia (FIT), in which a total of 150 ITP patients were randomized into two identical multi-center, double-blind, placebo-controlled clinical trials. The patients will have been diagnosed with persistent or chronic ITP, and have blood platelet counts consistently below 30,000 per microliter of blood. Two-thirds of the subjects will receive fostamatinib orally at 100 mg bid (twice daily) and the other third will receive placebo on the same schedule. Subjects were expected to remain on treatment for 24 weeks. At week four of treatment, subjects who failed to meet certain platelet count and met certain tolerability thresholds could have their dosage of fostamatinib (or corresponding placebo) increased to 150 mg bid. The primary efficacy endpoint of this program is a stable platelet response by week 24 with platelet counts at or above 50,000 per microliter of blood for at least four of the final six qualifying blood draws. In August 2015, the FDA granted our request for Orphan Drug designation to fostamatinib, our oral SYK inhibitor, for the treatment of ITP. On April 1, 2016, we announced that we completed enrollment for these two studies in the FIT Phase 3 clinical program of fostamatinib in ITP.

On August 30, 2016, we announced the results of the first study, reporting that fostamatinib met the study's primary efficacy endpoint. The study showed that 18% of patients receiving fostamatinib achieved a stable platelet response compared to none receiving a placebo control (p=0.0261). On October 20, 2016, we announced the results of the second study, reporting that the response rate was 18%, consistent with the first study. However, one patient in the placebo group (4%) achieved a stable platelet response, therefore the difference between those on treatment and those on placebo did not reach statistical significance (p=0.152) and the study did not meet its primary endpoint. When the data from both studies are combined, however, this difference is statistically significant (p=0.007). In the combined datasets for the first two Phase 3 studies, patients who met the primary endpoint had their platelet counts increase from a median of 18,500/uL of blood at baseline to more than 100,000/uL at week 24 of treatment. These patients benefited substantially and typically did so within weeks of initiating treatment, providing early feedback as to whether fostamatinib may be a viable option for treating their ITP. In the combined datasets, the frequency of patients who achieved a stable platelet response was statistically superior in the fostamatinib group versus the placebo group in the following subgroups: prior splenectomy or not; prior exposure to TPO agents or not; platelet counts below or above 15,000/uL of blood at baseline, demonstrating that the effect of fostamatinib is consistent across various clinical and treatment backgrounds.

Patients from the first two Phase 3 studies were given the option to enroll in a long-term open-label extension study and receive treatment with fostamatinib, also a Phase 3 trial. As of September 2016, 124 patients had been enrolled in this study. All the patients who responded to fostamatinib in the parent studies and enrolled in the long-term open-label extension study had maintained a median platelet count of 106,500/uL at a median of 16 months. In addition, there were 44 placebo non-responders that enrolled in the long-term open-label extension study. 41 of these patients had at least 12 weeks of follow-up. Of those, 9 patients (22%) have achieved a prospectively defined stable platelet response, which is statistically significant (p=0.0078) and similar to the response rate fostamatinib achieved in the parent studies.

In the combined dataset of both stable and intermediate responders for the first two Phase 3 studies, the response rate was 29% (29/101), compared to 2% (1/49) for placebo (p=<0.0001). A stable response was defined as a patient achieving platelet counts of greater than 50,000/uL on more than 4 of the 6 visits between weeks 14 and 24. In the post-study analysis performed by the Company, an intermediate response was defined to include patients achieving at least two consecutive median platelet counts over 50,000/uL during the trial without rescue, but who did not otherwise meet the stable response criteria.

The most frequent adverse events were gastrointestinal-related, and the safety profile of the product was consistent with prior clinical experience, with no new or unusual safety issues uncovered. Data from the first two Phase 3 studies as well as our ongoing open-label extension study demonstrates the consistent benefit of fostamatinib in ITP. We plan to submit an NDA for fostamatinib in ITP in the first quarter of 2017 and would expect to receive a decision on approval from the FDA in the first quarter of 2018, with a potential commercial launch in the U.S. in the first half of 2018.

Fostamatinib—IgAN

Disease background. IgAN is an autoimmune disease that severely affects the functioning of the kidneys. An estimated 12,000 Americans are diagnosed with this type of glomerulonephritis each year, with 25% of its victims eventually requiring dialysis and/or kidney transplantation over time. IgAN is characterized by the deposition of IgA immune complexes in the glomeruli of the kidneys leading to an inflammatory response and subsequent tissue damage that ultimately disrupts the normal filtering function of the kidneys. By inhibiting SYK in kidney cells, fostamatinib may block the signaling of IgA immune complex receptors and arrest or slow destruction of the glomeruli.

Orally-available SYK inhibitor program. Our Phase 2 clinical trial in patients with IgAN, called SIGN (SYK Inhibition for Glomerulonephritis) completed enrollment for the first cohort and is currently enrolling patients for the second cohort. In January 2017, we announced that the first cohort in the Phase 2 study of fostamatinib in IgAN was completed in various centers throughout Asia, the U.S. and Europe. This cohort evaluated the efficacy, safety, and tolerability of a low dose of fostamatinib (100mg BID, n=26; placebo n=12) as measured by change in proteinuria, renal function, and histology (comparing the pre- and post-study renal biopsies). The primary efficacy endpoint was the mean change in proteinuria from baseline at 24 weeks. The study found that at 24 weeks fostamatinib was well tolerated with a good safety profile. The initial data suggest a trend towards a greater reduction in proteinuria in fostamatinib treated patients relative to placebo. We are performing further analysis of data from the first cohort, particularly the histology review of the renal biopsies, as well as other secondary efficacy endpoints, which we will present later in 2017. The Phase 2 study for the second cohort is currently enrolling patients. We expect that the second cohort, evaluating a higher dose of fostamatinib (150 mg BID) for IgAN, will finish enrollment in 2017, with results in 2018.

Fostamatinib—AIHA

Disease background. AIHA is a rare, serious blood disorder where the immune system produces antibodies that result in the destruction of the body's own red blood cells. Symptoms can include fatigue, shortness of breath, rapid heartbeat, jaundice or enlarged spleen. While no medical treatments are currently approved for AIHA, physicians generally treat acute and chronic cases of the disorder with corticosteroids, other immuno-suppressants, or splenectomy. Research has shown that inhibiting SYK with fostamatinib may reduce the destruction of red blood cells. This disorder affects an estimated 40,000 Americans, for whom no approved treatment options currently exist.

Orally available SYK inhibitor program. We initiated a Phase 2 clinical trial in patients with AIHA in February 2016. The trial is an open-label, multi-center, two-stage study that will evaluate the efficacy and safety of fostamatinib in patients with warm antibody AIHA who have previously received treatment for the disorder, but have relapsed. Stage 1 will enroll 17 patients who will receive 150 mg of fostamatinib orally twice a day for a period of 12 weeks. The patients will return to the clinic every two weeks for blood draws and medical assessment. The primary efficacy endpoint of this study is to achieve increased hemoglobin levels by week 12 of greater than 10 g/dL, and greater than or equal to 2 g/dL higher than baseline. Stage 2 will include an additional 20 patients who will receive the same treatment protocol as Stage 1. We expect to have results of the Stage 1 segment of the trial in 2017. With this data, we will evaluate the best way forward and potentially an expedited path for pursuing AIHA.

R348—Dry Eye in Patients with Ocular Graft-Versus-Host Disease (GvHD)

Disease background. According to an article published by the American Academy of Ophthalmology, a significant number (22% to 80%) of patients with acute or chronic GvHD develop a secondary incidence of dry eye (keratoconjunctivitis sicca). In general, these patients are severely ill and have a great medical need for a topical therapy that may better manage their symptoms.

Topical Ophthalmic JAK/SYK inhibitor program. We recently completed our Phase 2 study of patients with ocular GvHD to determine if R348, an ophthalmic JAK/SYK inhibitor, reduces inflammation and limits the damage to the eye tissue caused by the disease. The study was comprised of 35 patients that were randomized to receive either R348 at 0.2%, 0.5% or a placebo eye drops for 12 weeks. The primary endpoint was a mean change from baseline at 12 weeks in total fluorescein staining score (CFS) of all corneal regions, a measure of corneal epithelial damage. In the "per protocol" population which is the pre-specified efficacy analysis population, the mean change from baseline at 12 weeks in CFS scores was -2.11 for the placebo group, -4.14 in the R348 0.2% group (p= 0.186 versus placebo group), and -6.00 in the R348 0.5% group (p=0.053 versus placebo, using nonparametric testing). As such, the primary endpoint was not met based on the results of the study. R348 was well tolerated by patients at both doses. In light of the overall findings, we have decided not to pursue this program.

Research/Preclinical Programs

We are conducting proprietary research in the broad disease areas of inflammation/immunology, immuno-oncology, cancers and muscle wasting/muscle endurance. Within each disease area, our researchers are investigating mechanisms of action as well as screening compounds against potential novel targets and optimizing those leads that appear to have the greatest potential.

We are conducting preclinical studies to identify a lead molecule for our IRAK program. Inhibitors of IRAK activity represent valuable therapeutic tools to treat cytokine-driven autoimmune and inflammatory diseases. We plan on selecting a molecule from our IRAK program for preclinical development in 2017. It is expected that the program will include clinical evaluation in immunology areas, such as for lupus, gout and/or psoriasis.

Sponsored Research and License Agreements

We conduct research and development programs independently and in connection with our corporate collaborators. We do not have ongoing participation obligations under our agreements with BMS for the discovery, development and commercialization of cancer immunotherapies based on our small molecule TGF beta receptor kinase inhibitors, Aclaris Therapeutics International Limited (Aclaris) for the development and commercialization of certain janus kinase (JAK) inhibitors for the treatment of alopecia areata and other dermatological conditions, AstraZeneca (AZ) for the development and commercialization of R256, an inhaled JAK inhibitor, BerGenBio for the development and commercialization of an oncology program, and Daiichi to pursue research related to a specific target from a novel class of drug targets called ligases. Under these agreements, which we entered into in the ordinary course of business, we received or may be entitled to receive upfront cash payments, progress dependent contingent payments on events achieved by such partners and royalties on any net sales of products sold by such partners under the agreements. Total future contingent payments to us under all of these current agreements could exceed $531.9 million if all potential product candidates achieved all of the payment triggering events under all of our current agreements (based on a single product candidate under each agreement). Of this amount, up to $148.8 million relates to the achievement of development events, up to $345.6 million relates to the achievement of regulatory events and up to $37.5 million relates to the achievement of certain commercial or launch events. This estimated future contingent amount does not include any estimated royalties that could be due to us if the partners successfully commercialize any of the licensed products. Future events that may trigger payments to us under the agreements are based solely on our partners' future efforts and achievements of specified development, regulatory and/or commercial events. Because we do not control the research, development or commercialization of the product candidates generated under these agreements, we are not able to reasonably estimate when, if at all, any contingent payments would become payable to us. As such, the contingent payments we could receive thereunder involve a substantial degree of risk to achieve and may never be received in the next 12 months or thereafter. Accordingly, we do not expect, and investors should not assume, that we will receive all of the potential contingent payments provided for under these agreements and it is possible that we may never receive any additional significant contingent payments or royalties under these agreements.

In October 2015, we entered into a non-exclusive license agreement with a third party, pursuant to which we received a payment in the single-digit millions in exchange for granting a non-exclusive license to certain limited intellectual property rights. We concluded that the granting of the license, which was fully delivered to such third party in the fourth quarter of 2015, represents the sole deliverable under this agreement. Accordingly, we recognized the payment as revenue during the year ended December 31, 2015.

In August 2015, we entered into a license agreement with Aclaris, pursuant to which Aclaris will have exclusive rights and will assume responsibility for the continued development of certain JAK inhibitor compounds for the treatment of alopecia areata and other dermatological conditions. Under the license agreement, we received a noncreditable and non-refundable upfront payment of $8.0 million in September 2015. We are also entitled to receive development and regulatory contingent fees that could exceed $80.0 million for a successful compound approved in certain indications. In addition, we are also eligible to receive tiered royalties on the net sales of any products under the agreement. We concluded that the granting of the license, which has been fully delivered to Aclaris in the third quarter of 2015, represents the sole deliverable under this agreement. Accordingly, we recognized the $8.0 million payment as revenue during the year ended December 31, 2015.

In February 2015, we entered into a collaboration agreement with BMS for the discovery, development and commercialization of cancer immunotherapies based on our extensive portfolio of small molecule TGF beta receptor kinase inhibitors. Under the collaboration agreement, BMS will have exclusive rights and will be solely responsible for the clinical development and commercialization of any products. Pursuant to the collaboration agreement with BMS, we received a noncreditable and non-refundable upfront payment of $30.0 million in March 2015. We are also entitled to receive development and regulatory contingent fees that could exceed $309.0 million for a successful compound approved in certain indications. In addition, we are also eligible to receive tiered royalties on the net sales of any products from the collaboration. BMS shall also reimburse us for agreed upon costs based on a contractual cost per full-time equivalent employee in connection with the performance of research activities during the research term.Under the collaboration agreement, we were obligated to provide the following deliverables: (i) granting of license rights to our program, (ii) participation in the Joint Research Committee, and (iii) performance of research activities. We concluded that these deliverables were a single unit of accounting as the license did not have stand-alone value apart from the other deliverables. Accordingly, the $30.0 million upfront payment was recognized ratably as revenue from the effective date of the agreement through September 2016, the end of the research term. We believed that straight-line recognition of this revenue was appropriate as the research was performed ratably over the research period. At the end of the initial research term, we were not notified by BMS of its intention to extend the initial research term under which we would perform research activities. However, BMS does continue to evaluate compounds from the extensive portfolio under the agreement, on its own. During the years ended December 31, 2016 and 2015, we recognized revenue of $13.4 million and $16.6 million, respectively, relating to the upfront payment, and $290,000 and $822,000, respectively, relating to the research activities we performed. We do not have any deferred revenue as of December 31, 2016.

BMS is responsible for evaluating the compounds from the extensive portfolio under the agreement, on its own, for designation of a compound as an early candidate nomination. In November 2016, we were notified by BMS that it has designated one compound as an early drug candidate and received $3.0 million in December 2016, triggered by this development event. All deliverables under the agreement had been previously delivered, as such, the above payment was recognized as revenue during the fourth quarter of 2016.

In June 2011, we entered into an exclusive license agreement with BerGenBio for the development and commercialization of an oncology program. BerGenBio is responsible for all activities it wishes to perform under the license we granted to it. In June 2016, we received contingent payments of $1.7 million relating to a time-based non-refundable fee and $2.0 million relating to BerGenBio's exercise of certain option rights before the prescription period to exercise the rights expired. All deliverables under the agreement had been previously delivered, as such, the above payments of $3.7 million triggered by the above time-based and contingent events were recognized as revenue in the second quarter of 2016.

Our Discovery Engine

The approaches that we use in connection with both our proprietary product development programs and our corporate collaborations are designed to identify protein targets for compound screening and validate the role of those targets in the disease process. Unlike genomics-based approaches, which begin by identifying genes and then searching for their functions, our approach identifies proteins that are demonstrated to have an important role in a specific disease pathway. By understanding the disease pathway, we attempt to avoid studying genes that will not make good drug targets and focus only on the subset of expressed proteins of genes that we believe are specifically implicated in the disease process.

We begin by developing assays that model the key events in a disease process at the cellular level. We then identify potential protein targets. In addition, we identify the proteins involved in the intracellular process and prepare a map of their interactions, thus giving us a comprehensive picture of the intracellular disease pathway. We believe that our approach has a number of advantages, including:

- *improved target identification:* it focuses only on the subset of expressed proteins of genes believed to be specifically implicated in the disease process;

- *rapid validation of protein targets:* it produces validated protein targets quickly because it uses key events in the disease process as the basis to design the functional, disease-based screen;

- *improved disease pathway mapping:* it produces a comprehensive map of the intracellular disease pathway, enabling the identification of a large number of potential protein targets;

- *informed target selection:* it provides a variety of different types of targets and information concerning the role each plays in their endogenous state to better select targets more susceptible to pharmaceutical intervention;

- *efficient compound screening:* it increases the probability and speed with which compound screening will identify "hits" because it provides detailed knowledge of the target that can be used to guide the design of the compound screen; and

- *risk reduction:* it may reduce the risk of failure in the product development process due to serious side effects, including toxicity or other reasons, by selecting only targets that are specific to the disease in question and that have no apparent role in other cell types or signaling pathways.

Because of the very large numbers of screens employed, our technology is labor intensive. The complexity of our technology requires a high degree of skill and diligence to perform successfully. We believe we have been and will continue to be able to meet these challenges successfully and increase our ability to identify targets for drug discovery.

Pharmacology and Preclinical Development

We believe that the rapid characterization and optimization of compounds identified in high-throughput screening (HTS) will generate high quality preclinical development candidates. Our pharmacology and preclinical development group facilitates lead optimization by characterizing lead compounds with respect to pharmacokinetics, potency, efficacy and selectivity. The generation of proof-of-principle data in animals and the establishment of standard pharmacological models with which to assess lead compounds represent integral components of lead optimization. As programs move through the lead optimization stage, our pharmacology and preclinical development groups support our chemists and biologists by performing the necessary studies, including toxicology, for IND application submissions.

Clinical Development

We have assembled a team of experts in drug development to design and implement clinical trials and to analyze the data derived from these trials. The clinical development group possesses expertise in project management and regulatory affairs. We work with external clinical research organizations with expertise in managing clinical trials, drug formulation, and the manufacture of clinical trial supplies to support our drug development efforts.

Intellectual Property

We are able to protect our technology from unauthorized use by third parties only to the extent that it is covered by valid and enforceable patents or is effectively maintained as a trade secret. Accordingly, patents and other proprietary rights are an essential element of our business. As of December 31, 2016, we had 67 pending patent applications and 341 issued and active patents in the United States, as well as corresponding pending foreign patent applications and issued foreign patents. Our policy is to file patent applications to protect technology, inventions and improvements to inventions that are commercially important to the development of our business. We seek U.S. and international patent protection for a variety of technologies, including new screening methodologies and other research tools, target molecules that are associated with disease states identified in our screens, and lead compounds that can affect disease pathways. We also intend to seek patent protection or rely upon trade secret rights to protect other technologies that may be used to discover and validate targets and that may be used to identify and develop novel drugs. We seek protection, in part, through confidentiality and proprietary information agreements. We are a party to various license agreements that give us rights to use technologies in our research and development.

Our patents extend for varying periods according to the date of patent filing or grant and the legal term of patents in the various countries where patent protection is obtained. Our material patents relate to compositions of matter covering specific drug candidates in clinical trials that target SYK. These patents will expire, excluding patent term extensions, in 2023, 2024 and 2026. Several of these patents will have patent term extensions, depending on the length of time required to conduct clinical trials.

We currently hold a number of issued patents in the United States, as well as corresponding applications that allow us to pursue patents in other countries, some of which have been allowed and/or granted and others of which we expect to be granted. Specifically, in most cases where we hold a U.S. issued patent, the subject matter is covered at least by an application filed under the Patent Cooperation Treaty (PCT), which is then used or has been used to pursue protection in certain countries that are members of the treaty. Our material patents relate to fostamatinib, an oral SYK inhibitor, and R406, the active metabolite of fostamatinib.

Fostamatinib. Fostamatinib is covered as a composition of matter in a U.S. issued patent that has an expiration date in September 2026, after taking into account a patent term adjustment, and may be granted further protection under the patent term extension rules related to conducting clinical trials. Fostamatinib is also covered under broader composition of matter claims in a U.S. issued patent that has an expiration date in March 2026, after taking into account a patent term adjustment. Methods of using fostamatinib to treat various indications, methods of making fostamatinib, and compositions of matter covering certain intermediates used to make fostamatinib are also covered, respectively, in three U.S. issued patents; the earliest expiration date of any of these patents is in April 2023 and the latest expiration date is in June 2026, after taking into account patent term adjustments. Corresponding applications have been filed in foreign jurisdictions under the PCT, and are at various stages of prosecution. Of note, a patent covering fostamatinib as a composition of matter and in compositions for use treating various diseases has been granted by the European Patent Office.

R406. R406 is covered as a composition of matter in a U.S. issued patent and, with a patent term adjustment, has an expiration date in February 2025. R406 is also covered under two broader composition of matter patents issued in the U.S. expiring in February 2023 and July 2024. Methods of using R406 to treat various indications and compositions of matter covering certain intermediates used to make R406 are also covered under patents described above. Corresponding applications have been filed in foreign jurisdictions under the PCT and are at various stages of prosecution.

Competition

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. Many of the drugs that we are attempting to discover will be competing with existing therapies. In addition, a number of companies are pursuing the development of pharmaceuticals that target the same diseases and conditions that we are targeting. For example, there are existing therapies and drug candidates in development for the treatment of ITP that may be alternative therapies to fostamatinib, if it is ultimately approved for commercialization. We face, and will continue to face, intense competition from pharmaceutical and biotechnology companies, as well as from academic and research institutions and government agencies, both in the United States and abroad. Some of these competitors are pursuing the development of pharmaceuticals that target the same diseases and conditions as our research programs. Our major competitors include fully integrated pharmaceutical companies that have extensive drug discovery efforts and are developing novel small molecule pharmaceuticals. We also face significant competition from organizations that are pursuing the same or similar technologies, including the discovery of targets that are useful in compound screening, as the technologies used by us in our drug discovery efforts.

Competition may also arise from:

- new or better methods of target identification or validation;
- other drug development technologies and methods of preventing or reducing the incidence of disease;
- new small molecules; or
- other classes of therapeutic agents.

Our competitors or their collaborative partners may utilize discovery technologies and techniques or partner with collaborators in order to develop products more rapidly or successfully than we or our collaborators are able to do. Many of our competitors, particularly large pharmaceutical companies, have substantially greater financial, technical and human resources and larger research and development staffs than we do. In addition, academic institutions, government agencies and other public and private organizations conducting research may seek patent protection with respect to potentially competitive products or technologies and may establish exclusive collaborative or licensing relationships with our competitors.

We believe that our ability to compete is dependent, in part, upon our ability to create, maintain and license scientifically advanced technology and upon our and our collaborators' ability to develop and commercialize pharmaceutical products based on this technology, as well as our ability to attract and retain qualified personnel, obtain patent protection or otherwise develop proprietary technology or processes and secure sufficient capital resources for the expected substantial time period between technological conception and commercial sales of products based upon our technology. The failure by any of our collaborators or us in any of those areas may prevent the successful commercialization of our potential drug targets.

Many of our competitors, either alone or together with their collaborative partners, have significantly greater experience than we do in:

- identifying and validating targets;
- screening compounds against targets; and
- undertaking preclinical testing and clinical trials.

Accordingly, our competitors may succeed in obtaining patent protection, identifying or validating new targets or discovering new drug compounds before we do.

Our competitors might develop technologies and drugs that are more effective or less costly than any that are being developed by us or that would render our technology and product candidates obsolete and noncompetitive. In addition, our competitors may succeed in obtaining the approval of the FDA or other regulatory agencies for product candidates more rapidly. Companies that complete clinical trials, obtain required regulatory agency approvals and commence commercial sale of their drugs before us may achieve a significant competitive advantage, including certain patent and FDA marketing exclusivity rights that would delay or prevent our ability to market certain products. Any drugs resulting from our research and development efforts, or from our joint efforts with our existing or future collaborative partners, might not be able to compete successfully with competitors' existing or future products or obtain regulatory approval in the United States or elsewhere.

We face and will continue to face intense competition from other companies for collaborative arrangements with pharmaceutical and biotechnology companies, for establishing relationships with academic and research institutions and for licenses to additional technologies. These competitors, either alone or with their collaborative partners, may succeed in developing technologies or products that are more effective than ours.

Our ability to compete successfully will depend, in part, on our ability to:

- identify and validate targets;
- discover candidate drug compounds that interact with the targets we identify;
- attract and retain scientific and product development personnel;
- obtain patent or other proprietary protection for our new drug compounds and technologies; and
- enter commercialization agreements for our new drug compounds.

Research and Development Expenses

A significant portion of our operating expenses is related to research and development and we intend to maintain our strong commitment to research and development. See "Item 8. Financial Statements and Supplementary Data" of this Annual Report on Form 10-K for costs and expenses related to research and development, and other financial information for each of the fiscal years 2016, 2015 and 2014.

Government Regulation

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions, extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, sales, post-approval monitoring and reporting, and import and export of pharmaceutical products. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations, require the expenditure of substantial time and financial resources.

Review and Approval of Drugs in the United States

In the United States, the FDA approves and regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and implementing regulations. The failure to comply with requirements under the FDCA and other applicable laws at any time during the product development process, approval process or after approval may subject an applicant and/or sponsor to a variety of administrative or judicial sanctions, including refusal by the FDA to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters and other types of letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement of profits, or civil or criminal investigations and penalties.

A drug product candidate must be approved by the FDA through the new drug application, or NDA. An applicant seeking approval to market and distribute a new drug product in the United States must typically undertake the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA’s good laboratory practice, or GLP, regulations;
- submission to the FDA of an IND, which must take effect before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, for each clinical site before each clinical trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with good clinical practices, or GCP, to establish the safety and efficacy of the proposed drug product for each indication;
- preparation and submission to the FDA of an NDA requesting marketing for one or more proposed indications;
- review by an FDA advisory committee, if requested by the FDA;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities at which the product, or components thereof, are produced to assess compliance with current Good Manufacturing Practices, or cGMP, requirements and to assure that the facilities, methods and controls are adequate to preserve the product’s identity, strength, quality and purity;
- satisfactory completion of FDA audits of clinical trial sites to assure compliance with GCPs and the integrity of the clinical data;
- payment of user fees and securing FDA approval of the NDA; and
- compliance with any post-approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy, or REMS, and potentially post-market requirement, or PMR, and commitment, or PMC, studies.

Before an applicant begins testing a compound with potential therapeutic value in humans, the drug candidate enters the preclinical testing stage. Preclinical studies include laboratory evaluation as well as in vitro and animal studies to assess the safety and activity of the drug for initial testing in humans and to establish a rationale for therapeutic use. The results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and plans for clinical studies, among other things, are submitted to the FDA as part of an IND. Some long-term preclinical testing, such as animal tests of reproductive adverse events and carcinogenicity, and long term toxicity studies, may continue after the IND is submitted.

In support of the IND, applicants must submit a protocol for each clinical trial and any subsequent protocol amendments. In addition, the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature, among other things, are submitted to the FDA as part of an IND. The FDA requires a 30-day waiting period after the submission of each IND before clinical trials may begin. At any time during this 30-day period, or thereafter, the FDA may raise concerns or questions about the conduct of the trials as outlined in the IND and impose a clinical hold or partial clinical hold. In this case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin or resume. An IRB representing each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must conduct continuing review and reapprove the study at least annually. An IRB can suspend or terminate approval of a clinical trial.

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include, among other things, the requirement that all research subjects provide their informed consent in writing before their participation in any clinical trial. Human clinical trials are typically conducted in sequential phases, which may overlap or be combined:

- ***Phase 1***. The drug is initially introduced into a small number of healthy human subjects or, in certain indications such as cancer, patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness and to determine optimal dosage.
- ***Phase 2***. The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- ***Phase 3***. These clinical trials are commonly referred to as “pivotal” studies, which denote a study that presents the data that the FDA or other relevant regulatory agency will use to determine whether or not to approve a drug. The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, identify adverse effects, establish the overall risk-benefit profile of the product and to provide adequate information for the labeling of the product.
- ***Phase 4***. Post-approval studies may be conducted after initial marketing approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication.

The FDA or the sponsor or the data monitoring committee may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk.

Review of an NDA by the FDA

If clinical trials are successful, the next step in the drug development process is the preparation and submission to the FDA of a NDA. The NDA is the vehicle through which drug applicants formally propose that the FDA approve a new drug for marketing and sale in the United States for one or more indications. The NDA must contain a description of the manufacturing process and quality control methods, as well as results of preclinical tests, toxicology studies, clinical trials and proposed labeling, among other things. The submission of most NDAs is subject to an application user fee and the sponsor of an approved NDA is also subject to annual product and establishment user fees. These fees are typically increased annually.

Following submission of an NDA, the FDA conducts a preliminary review of an NDA to determine whether the application is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA has agreed to goals to review and act within ten months from filing for standard review NDAs and within six months for NDAs that have been designated for “priority review”.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is or will be manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP. In addition, as a condition of approval, the FDA may require an applicant to develop a REMS. REMS use risk minimization strategies beyond the professional labeling to ensure that the benefits of the product outweigh the potential risks. To determine whether a REMS is needed, the FDA will consider the size of the population likely to use the product, seriousness of the disease, expected benefit of the product, expected duration of treatment, seriousness of known or potential adverse events, and whether the product is a new molecular entity.

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

On the basis of the FDA's evaluation of the NDA and accompanying information, including the results of the inspection of the manufacturing facilities, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. If and when those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the NDA, the FDA will issue an approval letter.

If the FDA approves a product, it may limit the approved indications for use for the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess the drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, many types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Post-Approval Requirements

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, and its implementing regulations, as well as the Drug Supply Chain Security Act, or DSCA, which regulate the distribution and tracing of prescription drugs and prescription drug samples at the federal level, and set minimum standards for the regulation of drug distributors by the states. The PDMA, its implementing regulations and state laws limit the distribution of prescription pharmaceutical product samples, and the DSCA imposes requirements to ensure accountability in distribution and to identify and remove counterfeit and other illegitimate products from the market.

Orphan Drug Designation and Exclusivity

Under the Orphan Drug Act, the FDA may designate a drug product as an "orphan drug" if it is intended to treat a rare disease or condition, generally meaning that it affects fewer than 200,000 individuals in the United States, or more in cases in which there is no reasonable expectation that the cost of developing and making a drug product available in the United States for treatment of the disease or condition will be recovered from sales of the product. A company must request orphan drug designation before submitting an NDA for the drug and rare disease or condition. Orphan drug designation does not shorten the goal dates for the regulatory review and approval process, although it does convey certain advantages such as tax benefits and exemption from the application fee.

If a product with orphan designation receives the first FDA approval for the disease or condition for which it has such designation, the product generally will receive orphan drug exclusivity. Orphan drug exclusivity means that the FDA may not approve another sponsor's marketing application for the same drug for the same indication for seven years, except in certain limited circumstances. Orphan exclusivity does not block the approval of a different drug for the same rare disease or condition, nor does it block the approval of the same drug for different indications. If a drug designated as an orphan drug ultimately receives marketing approval for an indication broader than what was designated in its orphan drug application, it may not be entitled to exclusivity. Orphan exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same drug for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand.

Pharmaceutical Coverage, Pricing and Reimbursement

In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Significant uncertainty exists as to the coverage and reimbursement status of products approved by the FDA and other government authorities. Thus, even if a product candidate is approved, sales of the product will depend, in part, on the extent to which third-party payors, including government health programs in the United States such as Medicare and Medicaid, commercial health insurers and managed care organizations, provide coverage, and establish adequate reimbursement levels for, the product. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors are increasingly challenging the prices charged, examining the medical necessity, and reviewing the cost-effectiveness of medical products and services and imposing controls to manage costs. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the approved products for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable marketing approvals. Nonetheless, product candidates may not be considered medically necessary or cost effective. A decision by a third-party payor not to cover a product candidate could reduce physician utilization once the product is approved and have a material adverse effect on sales, results of operations and financial condition. Additionally, a payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage and reimbursement for the product, and the level of coverage and reimbursement can differ significantly from payor to payor.

The containment of healthcare costs also has become a priority of federal, state and foreign governments and the prices of drugs have been a focus in this effort. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit a company's revenue generated from the sale of any approved products. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which a company or its collaborators receive marketing approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Healthcare Law and Regulation

Healthcare providers and third-party payors play a primary role in the recommendation and prescription of drug products that are granted marketing approval. Arrangements with providers, consultants, third-party payors and customers are subject to broadly applicable fraud and abuse, anti-kickback, false claims laws, reporting of payments to physicians and teaching physicians and patient privacy laws and regulations and other healthcare laws and regulations that may constrain business and/or financial arrangements. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, paying, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid;
- the federal civil and criminal false claims laws, including the civil False Claims Act, and civil monetary penalties laws, which prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false, fictitious or fraudulent or knowingly making, using or causing to made or used a false record or statement to avoid, decrease or conceal an obligation to pay money to the federal government.
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, and their respective implementing regulations, which impose obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal transparency requirements known as the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies to report annually to the Centers for Medicare & Medicaid Services, or CMS, within the United States Department of Health and Human Services, information related to payments and other transfers of value made by that entity to physicians and teaching hospitals, as well as ownership and investment interests held by physicians 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 healthcare items or services that are reimbursed by non-governmental third-party payors, including private insurers.

Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures.

Healthcare Reform

A primary trend in the United States healthcare industry and elsewhere is cost containment. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biopharmaceutical products, limiting coverage and reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States.

With the new Administration and Congress, there will likely be additional legislative changes, including repeal and replacement of certain provisions of the Affordable Care Act. It remains to be seen, however, precisely what the new legislation will provide, when it will be enacted and what impact it will have on the availability of healthcare and containing or lowering the cost of healthcare. Such reforms could have an adverse effect on anticipated revenue from product candidates that we may successfully develop and for which we may obtain marketing approval and may affect our overall financial condition and ability to develop product candidates.

Manufacturing and Raw Materials

We currently rely on, and will continue to rely on, third party contract manufacturers to produce sufficient quantities of our product candidates for use in our preclinical and clinical trials.

Employees

As of December 31, 2016, we had 77 employees. None of our employees are represented by a collective bargaining arrangement, and we believe our relationship with our employees is good. Recruiting and retaining qualified scientific personnel to perform research and development work in the future will be critical to our success. We may not be able to attract and retain personnel on acceptable terms given the competition among pharmaceutical and biotechnology companies, academic and research institutions and government agencies for experienced scientists.

Scientific and Medical Advisors

We utilize scientists and physicians to advise us on scientific and medical matters as part of our ongoing research and product development efforts, including experts in clinical trial design, preclinical development work, chemistry, biology, immunology, muscle wasting and metabolism, general metabolism and oncology. Certain of our consultants receive non-employee options to purchase our common stock and certain of our scientific and medical advisors receive honorarium for time spent assisting us.

Available Information

Our website is located at *www.rigel.com*. The information found on our website is not part of or incorporated by reference into this Annual Report on Form 10-K. We electronically file with the Securities and Exchange Commission (SEC) our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to the reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. We make available free of charge on or through our website copies of these reports as soon as reasonably practicable after we electronically file these reports with, or furnish them to, the SEC. Further, copies of these reports are available at the SEC's Public Reference Room at 100 F Street, NE, 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 also maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at *www.sec.gov*.

Item 1A. Risk Factor s

In evaluating our business, you should carefully consider the following risks, as well as the other information contained in this Annual Report on Form 10-K. These risk factors could cause our actual results to differ materially from those contained in forward-looking statements we have made in this Annual Report on Form 10-K and those we may make from time to time. If any of the following risks actually occurs, our business, financial condition and operating results could be harmed. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business.

If we are unable to submit the NDA or if we submit the NDA but it is not accepted or not approved for ITP by the FDA, this would have a material adverse effect on our business, financial performance and results of operations.

In August 2016, we announced the results of the first Phase 3 study of fostamatinib in ITP, reporting that fostamatinib met its primary efficacy endpoint. The study showed that 18% of patients receiving fostamatinib achieved a stable platelet response compared to none receiving a placebo control. In October 2016, we announced the results of the second study, reporting that the response rate was 18% consistent with the first study. However, one patient in the placebo group achieved a stable platelet response, therefore the difference between groups did not reach statistical significance. Additionally, we have announced updates on the results of the third Phase 3 study of fostamatinib in ITP, an open label long term extension study. We plan to submit an NDA for fostamatinib in ITP in the first quarter of 2017. Our NDA submission may include, among others, data on all three studies, a number of post-study analyses including an overall response rate for the first and second Phase 3 studies, which combines stable and intermediate responders, and a large legacy of safety data from previous trials. Given that one of the three studies did not meet its primary endpoint, there is a risk that the FDA will not accept the submission, or that the submission is accepted but not approved for any reason, including that meeting the primary end-points in the first and third studies is found by the FDA to be insufficient for approval, which would have a material adverse effect on our ability to generate revenue from the sales of fostamatinib in ITP. An inability to generate such revenue would have a material adverse effect on our business, financial performance and results of operations. In addition, the FDA may suggest that we need to conduct additional trials at significant costs before we seek regulatory approval of our product candidates. Any such requirement for additional trials would most likely result in our inability to commercialize fostamatinib in the United States for a significant period of time, which would have a material adverse effect on our ability to generate revenue from the sales of fostamatinib in ITP.

We will need additional capital in the future to sufficiently fund our operations and research.

We have consumed substantial amounts of capital to date as we continue our research and development activities, including preclinical studies and clinical trials. We may seek another collaborator or licensee in the future for further clinical development and commercialization of fostamatinib, as well as our other clinical programs, which we may not be able to obtain on commercially reasonable terms or at all. We also continue to evaluate ex-U.S. partnerships for fostamatinib and other partnering opportunities across our pipeline. We believe that our existing capital resources will be sufficient to support our current and projected funding requirements, including the preparation for potential commercial launch of fostamatinib in ITP in the U.S., through at least the next 12 months. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development of our product candidates and other research and development activities, including risks and uncertainties that could impact the rate of progress of our development activities, we are unable to estimate with certainty the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials and other research and development activities.

We will continue to need additional capital and the amount of future capital needed will depend largely on the success of our internally developed programs as they proceed in later and more expensive clinical trials, including any additional clinical trials that we may decide to conduct with respect to fostamatinib. Unless and until we are able to generate a sufficient amount of product, royalty or milestone revenue, which may never occur, we expect to finance future cash needs through public and/or private offerings of equity securities, debt financings or collaboration and licensing arrangements, as well as through interest income earned on the investment of our cash balances and short-term investments. With the exception of contingent and royalty payments that we may receive under our existing collaborations, we do not currently have any commitments for future funding. We do not know whether additional financing will be available when needed, or that, if available, we will obtain financing on reasonable terms. To the extent we raise additional capital by issuing equity securities in the future, our stockholders could at that time experience substantial dilution. In addition, we have a significant number of stock options outstanding. To the extent that outstanding stock options have been or may be exercised or other shares issued, our stockholders may experience further dilution. Further, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans including through our "at-the-market" equity offering programs. Any debt financing that we are able to obtain may involve operating covenants that restrict our business. To the extent that we raise additional funds through any new collaboration and licensing arrangements, we may be required to relinquish some rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us.

Our future funding requirements will depend on many uncertain factors.

Our future funding requirements will depend upon many factors, many of which are beyond our control, including, but not limited to:

- the FDA's acceptance of our NDA, or the successful regulatory approval of such NDA;
- the outcome of any potential FDA advisory committee meetings held for any of our product candidates;

- the progress and success of clinical trials and preclinical activities (including studies and manufacture of materials) of our product candidates conducted by us;
- the progress of research and development programs carried out by us and our collaborative partners;
- the costs and timing of regulatory filings and approvals by us and our collaborators;
- the costs to build and expand our sales, marketing and distribution capabilities;
- the costs to commercialize fostamatinib or any other future product candidates, if any such candidate receives regulatory approval for commercial sale;
- any changes in the breadth of our research and development programs;
- the ability to achieve the events identified in our collaborative agreements that may trigger payments to us from our collaboration partners;
- our ability to acquire or license other technologies or compounds that we may seek to pursue;
- our ability to manage our growth;
- competing technological and market developments;
- the costs and timing of obtaining, enforcing and defending our patent and other intellectual property rights; and
- expenses associated with any unforeseen litigation, including any securities class action lawsuits.

Insufficient funds may require us to delay, scale back or eliminate some or all of our research and development programs, to reduce personnel and operating expenses, to lose rights under existing licenses or to relinquish greater or all rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise choose or may adversely affect our ability to operate as a going concern.

There is a high risk that drug discovery and development efforts might not generate successful product candidates.

At the present time, the majority of our operations are focused on various stages of drug identification and development. We currently have various product candidates in the clinical testing stage. In our industry, it is statistically unlikely that the limited number of compounds that we have identified as potential product candidates will actually lead to successful product development efforts. We have invested a significant portion of our efforts and financial resources into the development of fostamatinib. Our ability to generate product revenue, which will not occur until after regulatory approval, if ever, will depend on the successful development, regulatory approval and eventual commercialization of one of our product candidates.

Our compounds in clinical trials and our future leads for potential drug compounds are subject to the risks and failures inherent in the development of pharmaceutical products. These risks include, but are not limited to, the inherent difficulty in selecting the right drug and drug target and avoiding unwanted side effects, as well as unanticipated problems relating to product development, testing, enrollment, obtaining regulatory approvals, maintaining regulatory compliance, manufacturing, competition and costs and expenses that may exceed current estimates. In future clinical trials, we or our partners may discover additional side effects and/or higher frequency of side effects than those observed in previously completed clinical trials. The results of preliminary and mid-stage clinical trials do not necessarily predict clinical or commercial success, and larger later-stage clinical trials may fail to confirm the results observed in the previous clinical trials. Similarly, a clinical trial may show that a product candidate is safe and effective for certain patient populations in a particular indication, but other clinical trials may fail to confirm those results in a subset of that population or in a different patient population, which may limit the potential market for that product candidate. With respect to our own compounds in development, we have established anticipated timelines with respect to the initiation of clinical trials based on existing knowledge of the compounds. However, we cannot provide assurance that we will meet any of these timelines for clinical development. Additionally, the initial results of a completed earlier clinical trial of a product candidate do not necessarily predict final results and the results may not be repeated in later clinical trials.

Because of the uncertainty of whether the accumulated preclinical evidence (pharmacokinetic, pharmacodynamic, safety and/or other factors) or early clinical results will be observed in later clinical trials, we can make no assurances regarding the likely results from our future clinical trials or the impact of those results on our business. If our clinical trials fail to meet the primary efficacy endpoints, the commercial prospects of our business may be harmed, our ability to generate product revenues may be delayed or eliminated or we may be forced to undertake other strategic alternatives that are in our shareholders’ best interests, including cost reduction measures. If we are unable to obtain adequate financing or engage in a strategic transaction on commercially reasonable terms or at all, we may be required to implement further cost reduction strategies which could significantly impact activities related to our research and development of our future product candidates, and could significantly harm our business, financial condition and results of operations. In addition, these cost reduction strategies could cause us to further curtail our operations or take other actions that would adversely impact our shareholders.

We might not be able to commercialize our product candidates successfully if problems arise in the clinical testing and approval process.

Commercialization of our product candidates depends upon successful completion of extensive preclinical studies and clinical trials to demonstrate their safety and efficacy for humans. Preclinical testing and clinical development are long, expensive and uncertain processes.

In connection with clinical trials of our product candidates, we face the risks that:

- the product candidate may not prove to be effective;
- the product candidate may cause harmful side effects;
- the clinical results may not replicate the results of earlier, smaller trials;
- we, or the FDA or similar foreign regulatory authorities, may terminate or suspend the trials;
- our results may not be statistically significant;
- patient recruitment and enrollment may be slower than expected;
- patients may drop out of the trials; and
- regulatory and clinical trial requirements, interpretations or guidance may change.

We do not know whether we will be permitted to undertake clinical trials of potential products beyond the trials already concluded and the trials currently in process. It will take us, or our collaborative partners several years to complete any such testing, and failure can occur at any stage of testing. Interim results of trials do not necessarily predict final results, and acceptable results in early trials may not be repeated in later trials. A number of companies in the pharmaceutical industry, including biotechnology companies, have suffered significant setbacks in advanced clinical trials, even after achieving promising results in earlier trials. For example, in October 2016, we announced that our second Phase 3 study in our FIT Phase 3 clinical program did not meet its primary endpoint. Moreover, we or our collaborative partners or regulators may decide to discontinue development of any or all of these projects at any time for commercial, scientific or other reasons. For example, in August 2014, we discontinued our indirect AMPK activator program, R118, due to its side-effect profile in Phase 1 clinical trials, and in July 2016, we discontinued our topical ophthalmic JAK/SYK inhibitor program, R348, due to our Phase 2 study of patients with ocular GvHD not meeting its primary endpoint.

We cannot assure you that we will be able to successfully complete the clinical development of our product candidates or receive regulatory approval to ultimately commercialize any of our other product candidates. For example, if we are unable to ultimately commercialize fostamatinib, our business will be harmed.

If we are unable to obtain regulatory approval to market products in the United States and foreign jurisdictions, we will not be permitted to commercialize products we or our collaborative partners may develop.

We cannot predict whether regulatory clearance will be obtained for any product that we, or our collaborative partners, hope to develop. Satisfaction of regulatory requirements typically takes many years, is dependent upon the type, complexity and novelty of the product and requires the expenditure of substantial resources. Of particular significance to us are the requirements relating to research and development and testing.

Before commencing clinical trials in humans in the United States, we, or our collaborative partners, will need to submit and receive approval from the FDA of an IND. Clinical trials are subject to oversight by institutional review boards and the FDA and:

- must be conducted in conformance with the FDA's good clinical practices and other applicable regulations;
- must meet requirements for institutional review board oversight;
- must meet requirements for informed consent;
- are subject to continuing FDA and regulatory oversight;
- may require large numbers of test subjects; and
- may be suspended by us, our collaborators or the FDA at any time if it is believed that the subjects participating in these trials are being exposed to unacceptable health risks or if the FDA finds deficiencies in the IND or the conduct of these trials.

While we have stated that we intend to file additional INDs for future product candidates, this is only a statement of intent, and we may not be able to do so because we may not be able to identify potential product candidates. In addition, the FDA may not approve any IND we or our collaborative partners may submit in a timely manner, or at all.

Before receiving FDA approval to market a product, we must demonstrate with substantial clinical evidence that the product is safe and effective in the patient population and the indication that will be treated. Data obtained from preclinical and clinical activities are susceptible to varying interpretations that could delay, limit or prevent regulatory approvals. In addition, delays or rejections may be encountered based upon additional government regulation from future legislation or administrative action or changes in FDA policy during the period of product development, clinical trials and FDA regulatory review. Failure to comply with applicable FDA or other applicable regulatory requirements may result in criminal prosecution, civil penalties, recall or seizure of products, total or partial suspension of production or injunction, adverse publicity, as well as other regulatory action against our potential products or us. Additionally, we have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approval.

If regulatory approval of a product is granted, this approval will be limited to those indications or disease states and conditions for which the product is demonstrated through clinical trials to be safe and efficacious. We cannot assure you that any compound developed by us, alone or with others, will prove to be safe and efficacious in clinical trials and will meet all of the applicable regulatory requirements needed to receive marketing approval.

Outside the United States, our ability, or that of our collaborative partners, to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities. This foreign regulatory approval process typically includes all of the risks and costs associated with FDA approval described above and may also include additional risks and costs, such as the risk that such foreign regulatory authorities, which often have different regulatory and clinical trial requirements, interpretations and guidance from the FDA, may require additional clinical trials or results for approval of a product candidate, any of which could result in delays, significant additional costs or failure to obtain such regulatory approval. For example, there can be no assurance that we or our collaborative partners will not have to provide additional information or analysis, or conduct additional clinical trials, before receiving approval to market product candidates.

Enacted or future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and may affect the prices we may set.

Third-party payors, whether domestic or foreign, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In both the United States and certain foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the health care system that could impact our ability to sell our products profitably. In particular, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively, the Affordable Care Act, was enacted.

The Affordable Care Act and its implementing regulations, among other things, substantially change the way healthcare is financed by both governmental and private insurers in the U.S. Among the provisions of the Affordable Care Act, those of the greatest impact on the pharmaceutical and biotechnology industry include a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for certain drugs that are inhaled, infused, instilled, implanted or injected; increased the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program; extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations; subjected manufacturers to new annual fees and taxes for certain branded prescription drugs; provided incentives to programs that increase the federal government’s comparative effectiveness research and established a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer’s outpatient drugs to be covered under Medicare Part D.

Other legislative changes have been proposed and adopted in the U.S. since the Affordable Care Act was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction, was unable to reach its required goals, thereby triggering the legislation’s automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013, and will remain in effect through 2024 unless additional Congressional action is taken. In January 2013, former President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several providers, including hospitals and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Legislative changes to the Affordable Care Act remain possible and appear likely in the 115th U.S. Congress and under the Trump Administration. We expect that the Affordable Care Act, as currently enacted or as it may be amended or repealed in the future, and other healthcare reform measures that may be adopted in the future, could have a material adverse effect on our industry generally and on our ability to successfully commercialize our product candidates, if approved. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we or our collaborators are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or our collaborators are not able to maintain regulatory compliance, our product candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability, which would adversely affect our business.

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

If any of our product candidates receive regulatory approval, they may nonetheless fail to gain sufficient market acceptance by physicians, hospital administrators, patients, healthcare payors and others in the medical community. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including the following:

- relative convenience and ease of administration;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the willingness of physicians to change their current treatment practices;
- the willingness of hospitals and hospital systems to include our product candidates as treatment options;
- demonstration of efficacy and safety in clinical trials;
- the prevalence and severity of any side effects;
- the ability to offer product candidates for sale at competitive prices;
- the price we charge for our product candidates;
- the strength of marketing and distribution support; and
- the availability of third-party coverage or reimbursement.

If any of our product candidates are approved, if at all, but do not achieve an adequate level of acceptance, we may not generate significant product revenue and we may not become profitable on a sustained basis.

We are in the initial stages of developing our sales, marketing and distribution capabilities. If we are unable to develop effective sales, marketing and distribution capabilities on our own or through collaborations or other marketing partners, we will not be successful in commercializing one or more of our product candidates.

We are in the early stages of developing our sales and marketing infrastructure and have never sold, marketed or distributed therapeutic products. To achieve commercial success for any of our product candidates, if at all approved, we must either develop a sales and marketing organization or outsource these functions to third parties. There are risks involved with establishing our own sales and marketing capabilities, as well as entering into arrangements with third parties to perform these services. Developing an internal sales force is expensive and time-consuming and could delay any product launch. If the commercial launch of one or more of our product candidates for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel. On the other hand, if we enter into arrangements with third parties to perform sales, marketing and distribution services, our product revenues will be lower than if we market and sell any products that we develop ourselves.

We also may not be successful entering into arrangements with third parties to sell and market one or more of our product candidates or may be unable to do so on terms that are favorable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market one or more of our product candidates effectively, which could damage our reputation. If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

Delays in clinical testing could result in increased costs to us.

We may not be able to initiate or continue clinical studies or trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these clinical trials as required by the FDA or other regulatory authorities. Even if we are able to enroll a sufficient number of patients in our clinical trials, if the pace of enrollment is slower than we expect, the development costs for our product candidates may increase and the completion of our clinical trials may be delayed or our clinical trials could become too expensive to complete. Significant delays in clinical testing could materially impact our product development costs and timing. Our estimates regarding timing are based on a number of assumptions, including assumptions based on past experience with our other clinical programs. If we are unable to enroll the patients in these trials at the projected rate, the completion of the clinical program could be delayed and the costs of conducting the program could increase, either of which could harm our business.

Clinical trials can be delayed for a variety of reasons, including delays in obtaining regulatory approval to commence a study, delays from scaling up of a study, delays in reaching agreement on acceptable clinical trial agreement terms with prospective clinical sites, delays in obtaining institutional review board approval to conduct a study at a prospective clinical site or delays in recruiting subjects to participate in a study. In addition, we typically rely on third-party clinical investigators to conduct our clinical trials and other third-party organizations to oversee the operations of such trials and to perform data collection and analysis. The clinical investigators are not our employees, and we cannot control the amount or timing of resources that they devote to our programs. Failure of the third-party organizations to meet their obligations could adversely affect clinical development of our products. As a result, we may face additional delaying factors outside our control if these parties do not perform their obligations in a timely fashion. For example, any number of those issues could arise with our clinical trials causing a delay. Delays of this sort could occur for the reasons identified above or other reasons. If we have delays in conducting the clinical trials or obtaining regulatory approvals, our product development costs will increase. For example, we may need to make additional payments to third-party investigators and organizations to retain their services or we may need to pay recruitment incentives. If the delays are significant, our financial results and the commercial prospects for our product candidates will be harmed, and our ability to become profitable will be delayed. Moreover, these third-party investigators and organizations may also have relationships with other commercial entities, some of which may compete with us. If these third-party investigators and organizations assist our competitors at our expense, it could harm our competitive position.

We lack the capability to manufacture compounds for clinical development and rely on third parties to manufacture our product candidates, and we may be unable to obtain required material in a timely manner, at an acceptable cost or at a quality level required to receive regulatory approval.

We currently do not have the manufacturing capabilities or experience necessary to produce our product candidates for clinical trials, including fostamatinib in ITP, AIHA and IgAN. We currently use one manufacturer of fostamatinib. For each clinical trial of our unpartnered product candidates, we rely on third-party manufacturers for the active pharmaceutical ingredients, as well as various manufacturers to manufacture starting components, excipients and formulated drug products. We rely on manufacturers to produce and deliver all of the materials required for our clinical trials, and many of our preclinical efforts, on a timely basis and to comply with applicable regulatory requirements, including the FDA's current Good Manufacturing Practices (cGMP). In addition, we rely on our third-party suppliers to deliver sufficient quantities of materials produced under cGMP conditions to enable us to conduct planned preclinical studies and clinical trials.

Our current and anticipated future dependence upon these third-party manufacturers may adversely affect our ability to develop and commercialize product candidates on a timely and competitive basis, which could have a material adverse effect on sales, results of operations and financial condition. If we were required to transfer manufacturing processes to other third-party manufacturers and we were able to identify an alternative manufacturer, we would still need to satisfy various regulatory requirements. Satisfaction of these requirements could cause us to experience significant delays in receiving an adequate supply of our products and products in development and could be costly. Moreover, we may not be able to transfer processes that are proprietary to the manufacturer, if any. These manufacturers may not be able to produce material on a timely basis or manufacture material at the quality level or in the quantity required to meet our development timelines and applicable regulatory requirements and may also experience a shortage in qualified personnel. We may not be able to maintain or renew our existing third-party manufacturing arrangements, or enter into new arrangements, on acceptable terms, or at all. Our third party manufacturers could terminate or decline to renew our manufacturing arrangements based on their own business priorities, at a time that is costly or inconvenient for us. If we are unable to contract for the production of materials in sufficient quantity and of sufficient quality on acceptable terms, our planned clinical trials may be significantly delayed. Manufacturing delays could postpone the filing of our IND applications and/or the initiation or completion of clinical trials that we have currently planned or may plan in the future.

Drug manufacturers are subject to ongoing periodic unannounced inspection by the FDA, the Drug Enforcement Administration, and other federal and state agencies to ensure strict compliance with cGMP and other government regulations and corresponding foreign standards. We do not have control over third-party manufacturers' compliance with these regulations and standards and they may not be able to comply. Switching manufacturers may be difficult because the number of potential manufacturers is limited. It may be difficult or impossible for us to find a replacement manufacturer quickly on acceptable terms, or at all. Additionally, if we are required to enter into new supply arrangements, we may not be able to obtain approval from the FDA of any alternate supplier in a timely manner, or at all, which could delay or prevent the clinical development and commercialization of any related product candidates. Failure of our third-party manufacturers or us to comply with applicable regulations could result in sanctions being imposed on us, including fines, civil penalties, delays in or failure to grant marketing approval of our product candidates, injunctions, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of products and compounds, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect our business.

We have obtained orphan drug designation from the FDA for fostamatinib for the treatment of ITP, but we may be unable to maintain the benefits associated with orphan drug designation, including the potential for market exclusivity.

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

Even though we have received orphan drug designation for fostamatinib for the treatment of ITP, we may not be the first to obtain marketing approval for the orphan-designated indication due to the uncertainties associated with developing pharmaceutical products. In addition, exclusive marketing rights in the United States may be limited if we seek approval for an indication broader than the orphan-designated indication or may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition. Further, even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs with different active moieties can be approved for the same condition. Even after an orphan product is approved, the FDA can subsequently approve the same drug with the same active moiety for the same condition if the FDA concludes that the later drug is safer, more effective, or makes a major contribution to patient care. Orphan drug designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process.

Our research and development efforts will be seriously jeopardized if we are unable to attract and retain key employees and relationships.

As a small company, our success depends on the continued contributions of our principal management and scientific personnel and on our ability to develop and maintain important relationships with leading academic institutions, scientists and companies in the face of intense competition for such personnel. In particular, our research programs depend on our ability to attract and retain highly skilled chemists, other scientists, and development, regulatory and clinical personnel. If we lose the services of any of our key personnel, our research and development efforts could be seriously and adversely affected. Our employees can terminate their employment with us at any time.

Our success as a company is uncertain due to our history of operating losses and the uncertainty of any future profitability.

We incurred a loss from operations of approximately $69.7 million for the year ended December 31, 2016. Other than for 2010, we have historically incurred losses from operations each year since we were incorporated in June 1996, due in large part to the significant research and development expenditures required to identify and validate new product candidates and pursue our development efforts. We expect to continue to incur losses from operations and there can be no assurance that we will generate operating income in the foreseeable future. Currently, our only potential sources of revenues are upfront payments, research and development contingent payments and royalty payments pursuant to our collaboration arrangements, which may never materialize if our collaborators do not achieve certain events or generate net sales to which these contingent payments are dependent on. If our drug candidates fail or do not gain regulatory approval, or if our drugs do not achieve market acceptance, we may not be profitable. As of December 31, 2016, we had an accumulated deficit of approximately $1.1 billion. The extent of our future losses or profitability, if any, is highly uncertain.

If our corporate collaborations or license agreements are unsuccessful, or if we fail to form new corporate collaborations or license agreements, our research and development efforts could be delayed.

Our strategy depends upon the formation and sustainability of multiple collaborative arrangements and license agreements with third parties now and in the future. We rely on these arrangements for not only financial resources, but also for expertise we need now and in the future relating to clinical trials, manufacturing, sales and marketing, and for licenses to technology rights. To date, we have entered into several such arrangements with corporate collaborators; however, we do not know if these collaborations or additional collaborations with third parties, if any, will dedicate sufficient resources or if any development or commercialization efforts by third parties will be successful. In addition, our corporate collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a drug candidate or development program. Should a collaborative partner fail to develop or commercialize a compound or product to which it has rights from us for any reason, including corporate restructuring, such failure might delay our ongoing research and development efforts, because we might not receive any future payments, and we would not receive any royalties associated with such compound or product. We conducted a Phase 3 clinical program to study fostamatinib in ITP on our own. We may seek another collaborator or licensee in the future for clinical development and commercialization of fostamatinib, as well as our other clinical programs, which we may not be able to obtain on commercially reasonable terms or at all. If we are unable to form new collaborations or enter into new license agreements, our research and development efforts could be delayed. In addition, the continuation of some of our partnered drug discovery and development programs may be dependent on the periodic renewal of our corporate collaborations.

Each of our collaborations could be terminated by the other party at any time, and we may not be able to renew these collaborations on acceptable terms, if at all, or negotiate additional corporate collaborations on acceptable terms, if at all. If these collaborations terminate or are not renewed, any resultant loss of revenues from these collaborations or loss of the resources and expertise of our collaborative partners could adversely affect our business.

Conflicts also might arise with collaborative partners concerning proprietary rights to particular compounds. While our existing collaborative agreements typically provide that we retain milestone payments and royalty rights with respect to drugs developed from certain derivative compounds, any such payments or royalty rights may be at reduced rates, and disputes may arise over the application of derivative payment provisions to such drugs, and we may not be successful in such disputes. Additionally, the management teams of our collaborators may change for various reasons including due to being acquired. Different management teams or an acquiring company of our collaborators may have different priorities which may have adverse results on the collaboration with us.

We are also a party to various license agreements that give us rights to use specified technologies in our research and development processes. The agreements pursuant to which we have in-licensed technology permit our licensors to terminate the agreements under certain circumstances. If we are not able to continue to license these and future technologies on commercially reasonable terms, our product development and research may be delayed or otherwise adversely affected.

If conflicts arise between our collaborators or advisors and us, any of them may act in their self-interest, which may be adverse to our stockholders' interests.

If conflicts arise between us and our corporate collaborators or scientific advisors, the other party may act in its self-interest and not in the interest of our stockholders. Some of our corporate collaborators are conducting multiple product development efforts within each disease area that is the subject of the collaboration with us or may be acquired or merged with a company having a competing program. In some of our collaborations, we have agreed not to conduct, independently or with any third party, any research that is competitive with the research conducted under our collaborations. Our collaborators, however, may develop, either alone or with others, products in related fields that are competitive with the products or potential products that are the subject of these collaborations. Competing products, either developed by our collaborators or to which our collaborators have rights, may result in their withdrawal of support for our product candidates.

If any of our corporate collaborators were to breach or terminate its agreement with us or otherwise fail to conduct the collaborative activities successfully and in a timely manner, the preclinical or clinical development or commercialization of the affected product candidates or research programs could be delayed or terminated. We generally do not control the amount and timing of resources that our corporate collaborators devote to our programs or potential products. We do not know whether current or future collaborative partners, if any, might pursue alternative technologies or develop alternative products either on their own or in collaboration with others, including our competitors, as a means for developing treatments for the diseases targeted by collaborative arrangements with us.

Our success is dependent on intellectual property rights held by us and third parties, and our interest in such rights is complex and uncertain.

Our success will depend to a large part on our own, our licensees' and our licensors' ability to obtain and defend patents for each party's respective technologies and the compounds and other products, if any, resulting from the application of such technologies. As of December 31, 2016, we had 67 pending patent applications and 341 issued and active patents in the United States, as well as corresponding pending foreign patent applications and issued foreign patents. In the future, our patent position might be highly uncertain and involve complex legal and factual questions. For example, we may be involved in post-grant proceedings before the United States Patent and Trademark Office. Post-grant proceedings are complex and expensive legal proceedings and there is no assurance we will be successful in any such proceedings. A post-grant proceeding could result in our losing our patent rights and/or our freedom to operate and/or require us to pay significant royalties. Additional uncertainty may result because no consistent policy regarding the breadth of legal claims allowed in biotechnology patents has emerged to date. Accordingly, we cannot predict the breadth of claims allowed in our or other companies' patents.

Because the degree of future protection for our proprietary rights is uncertain, we cannot assure you that:

- we were the first to make the inventions covered by each of our pending patent applications;
- we were the first to file patent applications for these inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies;
- any of our pending patent applications will result in issued patents;
- any patents issued to us or our collaborators will provide a basis for commercially-viable products or will provide us with any competitive advantages or will not be challenged by third parties;
- we will develop additional proprietary technologies that are patentable; or
- the patents of others will not have a negative effect on our ability to do business.

We rely on trade secrets to protect technology where we believe patent protection is not appropriate or obtainable; however, trade secrets are difficult to protect. While we require employees, collaborators and consultants to enter into confidentiality agreements, we may not be able to adequately protect our trade secrets or other proprietary information in the event of any unauthorized use or disclosure or the lawful development by others of such information.

We are a party to certain in-license agreements that are important to our business, and we generally do not control the prosecution of in-licensed technology. Accordingly, we are unable to exercise the same degree of control over this intellectual property as we exercise over our internally-developed technology. Moreover, some of our academic institution licensors, research collaborators and scientific advisors have rights to publish data and information in which we have rights. If we cannot maintain the confidentiality of our technology and other confidential information in connection with our collaborations, our ability to receive patent protection or protect our proprietary information may otherwise be impaired. In addition, some of the technology we have licensed relies on patented inventions developed using U.S. government resources.

The U.S. government retains certain rights, as defined by law, in such patents, and may choose to exercise such rights. Certain of our in-licenses may be terminated if we fail to meet specified obligations. If we fail to meet such obligations and any of our licensors exercise their termination rights, we could lose our rights under those agreements. If we lose any of our rights, it may adversely affect the way we conduct our business. In addition, because certain of our licenses are sublicenses, the actions of our licensors may affect our rights under those licenses.

If a dispute arises regarding the infringement or misappropriation of the proprietary rights of others, such dispute could be costly and result in delays in our research and development activities and partnering.

Our success will depend, in part, on our ability to operate without infringing or misappropriating the proprietary rights of others. There are many issued patents and patent applications filed by third parties relating to products or processes that are similar or identical to our licensors or ours, and others may be filed in the future. There may also be copyrights or trademarks that third parties hold. There can be no assurance that our activities, or those of our licensors, will not violate intellectual property rights of others. We believe that there may be significant litigation in the industry regarding patent and other intellectual property rights, and we do not know if our collaborators or we would be successful in any such litigation. Any legal action against our collaborators or us claiming damages or seeking to enjoin commercial activities relating to the affected products, our methods or processes could:

- require our collaborators or us to obtain a license to continue to use, manufacture or market the affected products, methods or processes, which may not be available on commercially reasonable terms, if at all;
- prevent us from using the subject matter claimed in the patents held by others;
- subject us to potential liability for damages;
- consume a substantial portion of our managerial and financial resources; and
- result in litigation or administrative proceedings that may be costly, whether we win or lose.

Our ability to use net operating losses and certain other tax attributes is uncertain and may be limited.

Our ability to use our federal and state net operating losses to offset potential future taxable income and related income taxes that would otherwise be due is dependent upon our generation of future taxable income before the expiration dates of the net operating losses, and we cannot predict with certainty when, or whether, we will generate sufficient taxable income to use all of our net operating losses. In addition, utilization of net operating losses to offset potential future taxable income and related income taxes that would otherwise be due is subject to annual limitations under the "ownership change" provisions of Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (Internal Revenue Code) and similar state provisions, which may result in the expiration of net operating losses before future utilization. In general, under the Code, if a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, the corporation's ability to use its pre-change net operating losses and other pre-change tax attributes (such as research and development credit carryforwards) to offset its post-change taxable income or taxes may be limited. Our equity offerings and other changes in our stock ownership, some of which are outside of our control, may have resulted or could in the future result in an ownership change. Although we have completed studies to provide reasonable assurance that an ownership change limitation would not apply, we cannot be certain that a taxing authority would reach the same conclusion. If, after a review or audit, an ownership change limitation were to apply, utilization of our domestic net operating losses and tax credit carryforwards could be limited in future periods and a portion of the carryforwards could expire before being available to reduce future income tax liabilities.

Because we expect to be dependent upon collaborative and license agreements, we might not meet our strategic objectives.

Our ability to generate revenue in the near term depends on the timing of recognition of certain upfront payments, achievement of certain payment triggering events with our existing collaboration agreements and our ability to enter into additional collaborative agreements with third parties. Our ability to enter into new collaborations and the revenue, if any, that may be recognized under these collaborations is highly uncertain. If we are unable to enter into one or more new collaborations, our business prospects could be harmed, which could have an immediate adverse effect on our ability to continue to develop our compounds and on the trading price of our stock. Our ability to enter into a collaboration may be dependent on many factors, such as the results of our clinical trials, competitive factors and the fit of one of our programs with another company's risk tolerance, including toward regulatory issues, patent portfolio, clinical pipeline, the stage of the available data, particularly if it is early, overall corporate goals and financial position.

To date, a portion of our revenues have been related to the research or transition phase of each of our collaborative agreements. Such revenues are for specified periods, and the impact of such revenues on our results of operations is at least partially offset by corresponding research costs. Following the completion of the research or transition phase of each collaborative agreement, additional revenues may come only from payments triggered by milestones and/or the achievement of other contingent events, and royalties, which may not be paid, if at all, until certain conditions are met. This risk is heightened due to the fact that unsuccessful research efforts may preclude us from receiving any contingent payments under these agreements. Our receipt of revenues from collaborative arrangements is also significantly affected by the timing of efforts expended by us and our collaborators and the timing of lead compound identification. We have received payments from our collaborations with Aclaris, BMS, AZ, BerGenBio, Janssen Pharmaceutica N.V., a division of Johnson & Johnson, Novartis Pharma A.G., Daiichi, Merck & Co., Inc., Merck Serono and Pfizer. Under many agreements, future payments may not be earned until the collaborator has advanced product candidates into clinical testing, which may never occur or may not occur until some time well into the future. If we are not able to generate revenue under our collaborations when and in accordance with our expectations or the expectations of industry analysts, this failure could harm our business and have an immediate adverse effect on the trading price of our common stock.

Our business requires us to generate meaningful revenue from royalties and licensing agreements. To date, we have not received any revenue from royalties for the commercial sale of drugs, and we do not know when we will receive any such revenue, if at all.

Securities class action lawsuits or other litigation could result in substantial damages and may divert management's time and attention from our business.

We have been subject to class action lawsuits in the past, including a securities class action lawsuit commenced in the United States District Court for the Northern District of California in February 2009, that was ultimately dismissed in November 2012. However, we may be subject to similar or completely unrelated claims in the future, such as those that might occur if there was to be a change in our corporate strategy. These and other lawsuits are subject to inherent uncertainties, and the actual costs to be incurred relating to the lawsuit will depend upon many unknown factors. The outcome of litigation is necessarily uncertain, and we could be forced to expend significant resources in the defense of such suits, and we may not prevail. Monitoring and defending against legal actions is time-consuming for our management and detracts from our ability to fully focus our internal resources on our business activities. In addition, we may incur substantial legal fees and costs in connection with any such litigation. We have not established any reserves for any potential liability relating to any such potential lawsuits. It is possible that we could, in the future, incur judgments or enter into settlements of claims for monetary damages. A decision adverse to our interests on any such actions could result in the payment of substantial damages, or possibly fines, and could have a material adverse effect on our cash flow, results of operations and financial position.

If our competitors develop technologies that are more effective than ours, our commercial opportunity will be reduced or eliminated.

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. Many of the drugs that we are attempting to discover will be competing with existing therapies. In addition, a number of companies are pursuing the development of pharmaceuticals that target the same diseases and conditions that we are targeting. For example, there are existing therapies and drug candidates in development for the treatment of ITP that may be alternative therapies to fostamatinib, if it is ultimately approved for commercialization. We face, and will continue to face, intense competition from pharmaceutical and biotechnology companies, as well as from academic and research institutions and government agencies, both in the United States and abroad. Some of these competitors are pursuing the development of pharmaceuticals that target the same diseases and conditions as our research programs. Our major competitors include fully integrated pharmaceutical companies that have extensive drug discovery efforts and are developing novel small-molecule pharmaceuticals. We also face significant competition from organizations that are pursuing the same or similar technologies, including the discovery of targets that are useful in compound screening, as the technologies used by us in our drug discovery efforts.

Competition may also arise from:

- new or better methods of target identification or validation;
- other drug development technologies and methods of preventing or reducing the incidence of disease;
- new small molecules; or
- other classes of therapeutic agents.

Our competitors or their collaborative partners may utilize discovery technologies and techniques or partner with collaborators in order to develop products more rapidly or successfully than we or our collaborators are able to do.

Many of our competitors, particularly large pharmaceutical companies, have substantially greater financial, technical and human resources and larger research and development staffs than we do. In addition, academic institutions, government agencies and other public and private organizations conducting research may seek patent protection with respect to potentially competitive products or technologies and may establish exclusive collaborative or licensing relationships with our competitors.

We believe that our ability to compete is dependent, in part, upon our ability to create, maintain and license scientifically-advanced technology and upon our and our collaborators' ability to develop and commercialize pharmaceutical products based on this technology, as well as our ability to attract and retain qualified personnel, obtain patent protection or otherwise develop proprietary technology or processes and secure sufficient capital resources for the expected substantial time period between technological conception and commercial sales of products based upon our technology. The failure by any of our collaborators or us in any of those areas may prevent the successful commercialization of our potential drug targets.

Many of our competitors, either alone or together with their collaborative partners, have significantly greater experience than we do in:

- identifying and validating targets;
- screening compounds against targets; and
- undertaking preclinical testing and clinical trials.

Accordingly, our competitors may succeed in obtaining patent protection, identifying or validating new targets or discovering new drug compounds before we do.

Our competitors might develop technologies and drugs that are more effective or less costly than any that are being developed by us or that would render our technology and product candidates obsolete and noncompetitive. In addition, our competitors may succeed in obtaining the approval of the FDA or other regulatory agencies for product candidates more rapidly. Companies that complete clinical trials, obtain required regulatory agency approvals and commence commercial sale of their drugs before us may achieve a significant competitive advantage, including certain patent and FDA marketing exclusivity rights that would delay or prevent our ability to market certain products. Any drugs resulting from our research and development efforts, or from our joint efforts with our existing or future collaborative partners, might not be able to compete successfully with competitors' existing or future products or obtain regulatory approval in the United States or elsewhere.

We face and will continue to face intense competition from other companies for collaborative arrangements with pharmaceutical and biotechnology companies, for establishing relationships with academic and research institutions and for licenses to additional technologies. These competitors, either alone or with their collaborative partners, may succeed in developing technologies or products that are more effective than ours.

Our stock price may be volatile, and our stockholders' investment in our common stock could decline in value.

The market prices for our common stock and the securities of other biotechnology companies have been highly volatile and may continue to be highly volatile in the future. The following factors, in addition to other risk factors described in this section, may have a significant impact on the market price of our common stock:

- the progress and success of our clinical trials and preclinical activities (including studies and manufacture of materials) of our product candidates conducted by us;
- the receipt or failure to receive the additional funding necessary to conduct our business;
- selling by large stockholders;
- presentations of detailed clinical trial data at medical and scientific conferences and investor perception

thereof;

- announcements of technological innovations or new commercial products by our competitors or us;
- developments concerning proprietary rights, including patents;
- developments concerning our collaborations;
- publicity regarding actual or potential medical results relating to products under development by our competitors or us;
- regulatory developments in the United States and foreign countries;
- litigation or arbitration;
- economic and other external factors or other disaster or crisis; and
- period-to-period fluctuations in financial results.

If we fail to continue to meet the listing standards of NASDAQ, our common stock may be delisted, which could have a material adverse effect on the liquidity of our common stock.

Our common stock is currently listed on the Nasdaq Global Market. The NASDAQ Stock Market LLC has requirements that a company must meet in order to remain listed on NASDAQ. In particular, NASDAQ rules require us to maintain a minimum bid price of $1.00 per share of our common stock. If the closing bid price of our common stock were to fall below $1.00 per share for 30 consecutive trading days or we do not meet other listing requirements, we would fail to be in compliance with NASDAQ's listing standards. There can be no assurance that we will continue to meet the minimum bid price requirement, or any other requirement in the future. If we fail to meet the minimum bid price requirement, The NASDAQ Stock Market LLC may initiate the delisting process with a notification letter. If we were to receive such a notification, we would be afforded a grace period of 180 calendar days to regain compliance with the minimum bid price requirement. In order to regain compliance, shares of our common stock would need to maintain a minimum closing bid price of at least $1.00 per share for a minimum of 10 consecutive trading days. In addition, we may be unable to meet other applicable NASDAQ listing requirements, including maintaining minimum levels of stockholders' equity or market values of our common stock in which case, our common stock could be delisted. If our common stock were to be delisted, the liquidity of our common stock would be adversely affected and the market price of our common stock could decrease.

The vote by the United Kingdom (U.K.) electorate in favor of the U.K.'s exit from the European Union (E.U.) could adversely impact our business, results of operations and financial condition.

The passage of the referendum on the U.K.'s membership in the E.U., referred to as "Brexit," in June 2016 resulted in a determination that the U.K. should exit the E.U. Such an exit from the E.U. could cause uncertainty in the credit markets and financial services industry which could result to lower interest paid on certain of our investments and the value of certain securities we hold may decline in the future, which could negatively affect our financial condition, results of operations and cash flow, as well as limit our future access to the capital markets. The Brexit could also cause disruptions to and create uncertainty surrounding the business environment in which we operate. For example, we conduct clinical trials in the U.K. and other E.U . member states. Although the terms of U.K.'s exit from and its future relationship with E.U. are unknown, it is possible that there will be increased regulatory complexities which can disrupt the timing of our clinical trials and regulatory approvals, if any, of our current and future product candidates.

Our ability to generate revenues will be diminished if we or our collaborative partners fail to obtain acceptable prices or an adequate level of reimbursement for products from third-party payers or government agencies.

The drugs we hope to develop may be rejected by the marketplace due to many factors, including cost. Our ability to commercially exploit a drug may be limited due to the continuing efforts of government and third-party payers to contain or reduce the costs of health care through various means. For example, in some foreign markets, pricing and profitability of prescription pharmaceuticals are subject to government control. In the United States, we expect that there will continue to be a number of federal and state proposals to implement similar government control. In addition, increasing emphasis on managed care in the United States will likely continue to put pressure on the pricing of pharmaceutical products. Cost control initiatives could decrease the price that we or any of our collaborators would receive for any products in the future. Further, cost control initiatives could adversely affect our and our collaborators' ability to commercialize our products and our ability to realize royalties from this commercialization.

Our ability to commercialize pharmaceutical products with collaborators may depend, in part, on the extent to which reimbursement for the products will be available from:

- government and health administration authorities;
- private health insurers; and
- other third-party payers.

Significant uncertainty exists as to the reimbursement status of newly-approved healthcare products. Third-party payers, including Medicare, are challenging the prices charged for medical products and services. Government and other third-party payers increasingly are attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for new drugs and by refusing, in some cases, to provide coverage for uses of approved products for disease indications for which the FDA has not granted labeling approval. Third-party insurance coverage may not be available to patients for any products we discover and develop, alone or with collaborators. If government and other third-party payers do not provide adequate coverage and reimbursement levels for our products, the market acceptance of these products may be reduced.

If product liability lawsuits are successfully brought against us, we may incur substantial liabilities and may be required to limit commercialization of our products.

The testing and marketing of medical products entail an inherent risk of product liability. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our products. We carry product liability insurance that is limited in scope and amount and may not be adequate to fully protect us against product liability claims. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of pharmaceutical products we develop, alone or with corporate collaborators. We, or our corporate collaborators, might not be able to obtain insurance at a reasonable cost, if at all. While under various circumstances we are entitled to be indemnified against losses by our corporate collaborators, indemnification may not be available or adequate should any claim arise.

We depend on various scientific consultants and advisors for the success and continuation of our research and development efforts.

We work extensively with various scientific consultants and advisors. The potential success of our drug discovery and development programs depends, in part, on continued collaborations with certain of these consultants and advisors. We, and various members of our management and research staff, rely on certain of these consultants and advisors for expertise in our research, regulatory and clinical efforts. Our scientific advisors are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. We do not know if we will be able to maintain such consulting agreements or that such scientific advisors will not enter into consulting arrangements, exclusive or otherwise, with competing pharmaceutical or biotechnology companies, any of which would have a detrimental impact on our research objectives and could have a material adverse effect on our business, financial condition and results of operations.

If we use biological and hazardous materials in a manner that causes injury or violates laws, we may be liable for damages, penalties or fines.

Our research and development activities involve the controlled use of potentially harmful biological materials as well as hazardous materials, chemicals and various radioactive compounds. We cannot completely eliminate the risk of accidental contamination or injury from the use, storage, handling or disposal of these materials. In the event of contamination or injury, we could be held liable for damages that result or for penalties or fines that may be imposed, and such liability could exceed our resources. We are also subject to federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. The cost of compliance with, or any potential violation of, these laws and regulations could be significant.

Our internal computer systems, or those used by our contract research organizations or other contractors or consultants, may fail or suffer security breaches.

Despite the implementation of security measures, our internal computer systems and those of our contract research organizations and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such system failure, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a disruption of our drug development programs. For example, the loss of clinical trial data from completed or ongoing clinical trials for a product candidate could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development of any product candidates could be delayed.

Our facilities are located near known earthquake fault zones, and the occurrence of an earthquake or other catastrophic disaster could cause damage to our facilities and equipment, which could require us to cease or curtail operations.

Our facilities are located in the San Francisco Bay Area near known earthquake fault zones and are vulnerable to significant damage from earthquakes. We are also vulnerable to damage from other types of disasters, including fires, floods, power loss, communications failures and similar events. If any disaster were to occur, our ability to operate our business at our facilities would be seriously, or potentially completely, impaired, and our research could be lost or destroyed. In addition, the unique nature of our research activities and of much of our equipment could make it difficult for us to recover from a disaster. The insurance we maintain may not be adequate to cover our losses resulting from disasters or other business interruptions.

Future equity issuances or a sale of a substantial number of shares of our common stock may cause the price of our common stock to decline.

Because we will continue to need additional capital in the future to continue to expand our business and our research and development activities, among other things, we may conduct additional equity offerings. For example, under the universal shelf registration statement filed by us in May 2015 and declared effective by the SEC in July 2015, we may offer and sell any combination of common stock, preferred stock, debt securities and warrants in one or more offerings, up to a cumulative value of $150 million. To date, we have $74 million remaining under such universal shelf registration statement. If we or our stockholders sell, or if it is perceived that we or they will sell, substantial amounts of our common stock (including shares issued upon the exercise of options and warrants) in the public market, the market price of our common stock could fall. A decline in the market price of our common stock could make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem appropriate. In addition, future sales by us of our common stock may be dilutive to existing stockholders. Furthermore, if we obtain funds through a credit facility or through the issuance of debt or preferred securities, these securities would likely have rights senior to the rights of our common stockholders, which could impair the value of our common stock.

Anti-takeover provisions in our charter documents and under Delaware law may make an acquisition of us, which may be beneficial to our stockholders, more difficult.

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

- establish that members of the board of directors may be removed only for cause upon the affirmative vote of stockholders owning a majority of our capital stock;

- authorize the issuance of “blank check” preferred stock that could be issued by our board of directors to increase the number of outstanding shares and thwart a takeover attempt;
- limit who may call a special meeting of stockholders;
- prohibit stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;
- establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings;
- provide for a board of directors with staggered terms; and
- provide that the authorized number of directors may be changed only by a resolution of our board of directors.

In addition, Section 203 of the Delaware General Corporation Law, which imposes certain restrictions relating to transactions with major stockholders, may discourage, delay or prevent a third party from acquiring us.

Item 1B. Unresolved Staff Comment s

None.

Item 2. Propertie s

We currently lease facilities consisting of approximately 147,000 square feet of research and office space located at 1180 Veterans Boulevard, South San Francisco, California, of which, commencing in December 2014, we sublet approximately 57,000 square feet of our research and office space to an unrelated third party. Both the lease and the sublease expire in January 2018. We believe our facilities are in good operating condition and that the leased real property that we still occupy is adequate for all present and near term uses.

Item 3. Legal Proceeding s

None.

Item 4. Mine Safety Disclosure s

Not applicable.

PART II

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

Our common stock commenced trading publicly under the symbol "RIGL" on December 7, 2000. The following table sets forth, for the periods indicated, the high and low intraday sales prices of our common stock as reported on the Nasdaq Global Market:

	High	Low
Year Ended December 31, 2015		
First Quarter	$ 3.91	$ 2.02
Second Quarter	$ 5.20	$ 2.95
Third Quarter	$ 3.39	$ 2.32
Fourth Quarter	$ 3.68	$ 2.42
Year Ended December 31, 2016		
First Quarter	$ 2.97	$ 1.94
Second Quarter	$ 2.93	$ 2.16
Third Quarter	$ 3.93	$ 2.13
Fourth Quarter	$ 4.01	$ 2.38

On March 1, 2017, the last reported sale price for our common stock on the Nasdaq Global Market was $2.85 per share.

Holders

As of March 1, 2017, there were approximately 95 stockholders of record of our common stock.

Dividends

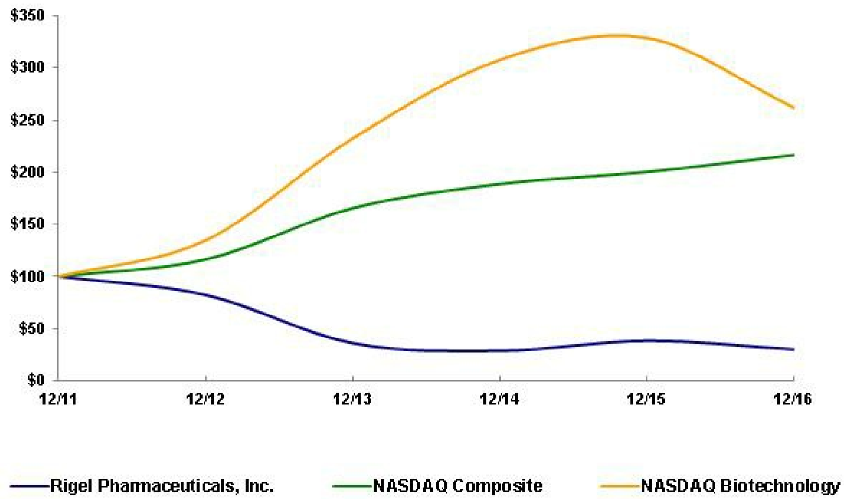
We have not paid any cash dividends on our common stock and currently do not plan to pay any cash dividends in the foreseeable future.

Performance Measurement Comparison

The graph below shows the cumulative total stockholder return of an investment of $100 (and the reinvestment of any dividends thereafter) on December 31, 2011 in (i) our common stock, (ii) the Nasdaq Composite Index and (iii) the Nasdaq Biotechnology Index. The Nasdaq Biotechnology Index is a modified-capitalization weighted index that includes securities of Nasdaq-listed companies classified according to the Industry Classification Benchmark as either Biotechnology or Pharmaceuticals and which also meet other eligibility criteria. Our stock price performance shown in the graph below is based upon historical data and is not indicative of future stock price performance.

The following graph and related information shall not be deemed "soliciting material" or be deemed to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing, except to the extent that we specifically incorporate it by reference into such filing.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Rigel Pharmaceuticals, Inc., the NASDAQ Composite Index
and the NASDAQ Biotechnology Index



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* $100 invested on December 31, 2011 in stock or index-including reinvestment of dividends at fiscal year ending December 31.

Item 6. Selected Financial Dat a

The following selected financial data have been derived from our audited financial statements. The information set forth below is not necessarily indicative of our results of future operations and should be read in conjunction with “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Item 8. Financial Statements and Supplementary Data” included elsewhere in this Annual Report on Form 10- K.

	Fiscal Year Ended December 31,				
	2016	2015	2014	2013	2012
	(in thousands, except per share amounts)				
Statements of Operations Data:					
Contract revenues from collaborations	$ 20,383	$ 28,895	$ 8,250	$ 7,150	$ 2,250
Costs and expenses:					
Research and development	63,446	62,825	67,696	75,328	78,778
General and administrative	20,908	17,813	22,501	19,612	22,849
Restructuring charges	5,770	—	—	1,679	—
Loss on sublease	—	—	9,302	—	—
Total costs and expenses	90,124	80,638	99,499	96,619	101,627
Loss from operations	(69,741)	(51,743)	(91,249)	(89,469)	(99,377)
Interest income	437	222	243	426	520
Gain on disposal of assets	88	57	98	16	17
Net loss	$ (69,216)	$ (51,464)	$ (90,908)	$ (89,027)	$ (98,840)
Net loss per share, basic and diluted	$ (0.73)	$ (0.58)	$ (1.04)	$ (1.02)	$ (1.32)
Weighted average shares used in computing net loss per share, basic and diluted	94,387	88,434	87,662	87,288	74,967

	As of December 31,				
	2016	2015	2014	2013	2012
	(in thousands)				
Balance Sheet Data:					
Cash, cash equivalents and short-term investments	$ 74,766	$ 126,276	$ 143,159	$ 211,975	$ 298,241
Working capital	53,626	95,228	136,512	209,781	290,254
Total assets	78,134	131,747	154,135	226,058	310,043
Accumulated deficit	(1,060,862)	(991,646)	(940,182)	(849,274)	(760,247)
Total stockholders’ equity	55,027	91,381	128,246	208,251	289,096

See Note 1 to the Financial Statements for description of the number of shares used in the computation of basic and diluted loss per share.

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

Overview

We are a clinical-stage biotechnology company dedicated to the discovery and development of novel, targeted drugs in the therapeutic areas of immunology, oncology and immuno-oncology. Our pioneering research focuses on signaling pathways that are critical to disease mechanisms. Our current clinical programs include clinical studies of fostamatinib, an oral spleen tyrosine kinase (SYK) inhibitor in a number of indications. We completed and reported results from the FIT Phase 3 clinical program of fostamatinib in chronic immune thrombocytopenia (ITP). We are also conducting a Phase 2 clinical study with fostamatinib in autoimmune hemolytic anemia (AIHA) and a Phase 2 clinical study for IgA nephropathy (IgAN). In addition, we have two oncology product candidates in development with partners BerGenBio AS (BerGenBio) (Phase 2) and Daiichi Sankyo (Daiichi) (Phase 1).

Since inception, we have financed our operations primarily through the sale of equity securities, and contract payments under our collaboration agreements. Our research and development activities, including preclinical studies and clinical trials, consume substantial amounts of capital. As of December 31, 2016, we had approximately $74.8 million in cash, cash equivalents and short term investments. During the year ended December 31, 2016, we received an aggregate proceeds of $24.3 million under the Controlled Equity Offering[SM] Sales Agreement, an aggregate of $6.7 million payments pursuant to our agreements with our collaborative partners, and approximately $4.5 million of sublease income and reimbursements under a sublease agreement with an unrelated third party. In February 2017, we completed an underwritten public offering in which we sold 23,000,000 shares of our common stock pursuant to an effective registration statement at a price to the public of $2.00 per share. We received net proceeds of approximately $43.0 million after deducting underwriting discounts and commissions and estimated offering expenses. We believe that our existing capital resources will be sufficient to support our current and projected funding requirements, including the preparation for potential commercial launch of fostamatinib in ITP in the U.S., through at least the next 12 months. We also continue to evaluate ex-U.S. partnerships for fostamatinib and other partnering opportunities across our pipelines.

Our revenues have consisted primarily of revenues from sponsored research and license agreements with our corporate collaborators. We earned contract revenues from collaborations of $20.4 million in 2016 comprised of the amortization of the $30.0 million upfront payment from BMS of $13.4 million, contingent payment of $3.0 million, and the FTE fees we earned from BMS of $290,000, as well as the contingent payment we received from BerGenBio of $3.7 million.

Within our product development portfolio, our most advance program is fostamatinib in ITP. Data from the first two Phase 3 studies, as well as our ongoing open-label extension study demonstrate the consistent benefit of fostamatinib in ITP. We plan to submit an NDA for fostamatinib in ITP in the first quarter of 2017 and would expect to receive a decision on approval from the FDA in the first quarter of 2018, with a potential commercial launch in the U.S. in the first half of 2018.

Product Development Programs

Our product development portfolio features multiple novel, targeted drug candidates in the therapeutic areas of immunology, oncology and immuno-oncology. Please refer to "Part I. Item 1. Business—Product Development Programs" for a detailed discussion of our multiple product candidates in development.

Corporate Collaborations

We conduct research and development programs independently and in connection with our corporate collaborators. Please refer to "Part I. Item 1. Business—Corporate Collaborations" for a detailed discussion of our corporate collaborations.

Recent Developments

Changes in Board of Directors

On February 22, 2017, Stephen A. Sherwin, M.D. notified the Company of his decision to resign as a member of the Board of Directors of the Company (the "Board"), effective as of May 11, 2017, the anticipated date of the Company's 2017 Annual Meeting of Stockholders.

Effective upon Dr. Sherwin's resignation, the Board also appointed Gary A. Lyons, a current member of the Board, to the Audit Committee of the Board (the "Audit Committee"). Mr. Lyons's appointment to the Audit Committee fills the vacancy created by the resignation of Dr. Sherwin.

Effective February 24, 2017, and solely in order to provide for an equal apportionment of the members among the three classes of the Company's classified Board, Raul R. Rodriguez, resigned from the Board as a director continuing in office until the Company's 2018 Annual Meeting of Stockholders and was immediately reappointed by the Board as a director continuing in office until the Company's 2017 Annual Meeting of Stockholders. The reallocation of Mr. Rodriguez as a director continuing in office until the Company's 2017 Annual Meeting of Stockholders had no effect on any aspect of Mr. Rodriguez's compensatory arrangements with the Company.

In connection with these actions and in accordance with the Company's amended and restated certificate of incorporation and amended and restated bylaws, the Board eliminated the vacancy created from Dr. Sherwin's resignation from the Board by reducing the total number of authorized directors to six (6) members, effective upon Dr. Sherwin's resignation.

Research and Development Expenses

Our research and development expenditures include costs related to preclinical and clinical trials, scientific personnel, supplies, equipment, consultants, sponsored research, stock-based compensation, and allocated facility costs.

We do not track fully-burdened research and development costs separately for each of our drug candidates. We review our research and development expenses by focusing on three categories: research, development, and other. Our research team is focused on creating a portfolio of product candidates that can be developed into small-molecule therapeutics in our own proprietary programs or with potential collaborative partners and utilizes our discovery engine to discover and validate new product candidates in our focused range of therapeutic indications. "Research" expenses relate primarily to personnel expenses, lab supplies, fees to third party research consultants and compounds. Our development group leads the implementation of our clinical and regulatory strategies and prioritizes disease indications in which our compounds may be studied in clinical trials. "Development" expenses relate primarily to clinical trials, personnel expenses, lab supplies and fees to third party research consultants. "Other" expenses primarily consist of allocated facilities costs and allocated stock-based compensation expense relating to personnel in research and development groups.

In addition to reviewing the three categories of research and development expenses described in the preceding paragraph, we principally consider qualitative factors in making decisions regarding our research and development programs, which include enrollment in clinical trials and the results thereof, the clinical and commercial potential for our drug candidates and competitive dynamics. We also make our research and development decisions in the context of our overall business strategy, which includes the evaluation of potential collaborations for the development of our drug candidates.

The following table presents our total research and development expenses by category.

	Year Ended December 31,			From January 1, 2007*
	2016	2015	2014	to December 31, 2016
	(in thousands)			
Categories:				
Research	$ 19,909	$ 21,904	$ 18,388	$ 216,408
Development	30,951	25,988	27,727	314,233
Other	12,586	14,933	21,581	221,951
	$ 63,446	$ 62,825	$ 67,696	$ 752,592

* We started tracking research and development expenses by category on January 1, 2007.

"Other" expenses mainly represent allocated facilities costs of approximately $9.5 million, $10.8 million and $16.9 million for the years ended December 31, 2016, 2015 and 2014, respectively, and allocated stock-based compensation expenses of approximately $3.1 million, $4.1 million and $4.7 million for the years ended December 31, 2016, 2015 and 2014, respectively.

For the year ended December 31, 2016, a major portion of our total research and development expense was associated with research and development expense for our ITP, IgAN and AIHA programs, salaries of our research and development personnel, allocated facilities costs, and research and development expense for our ITP, IgAN and AIHA programs. For the years ended December 31, 2015 and 2014, a major portion of our total research and development expense was associated with salaries of our research and development personnel, allocated facilities costs, and research and development expense for our ITP and IgAN programs.

We do not have reliable estimates regarding the timing of our clinical trials. Preclinical testing and clinical development are long, expensive and uncertain processes. In general, biopharmaceutical development involves a series of steps, beginning with identification of a potential target and including, among others, proof of concept in animals and Phase 1, 2 and 3 clinical trials in humans. Significant delays in clinical testing could materially impact our product development costs and timing of completion of the clinical trials. We do not know whether planned clinical trials will begin on time, will need to be halted or revamped or will be completed on schedule, or at all. Clinical trials can be delayed for a variety of reasons, including delays in obtaining regulatory approval to commence a trial, delays from scale up, delays in reaching agreement on acceptable clinical trial agreement terms with prospective clinical sites, delays in obtaining institutional review board approval to conduct a clinical trial at a prospective clinical site or delays in recruiting subjects to participate in a clinical trial.

We currently do not have reliable estimates of total costs for a particular drug candidate to reach the market. Our potential products are subject to a lengthy and uncertain regulatory process that may involve unanticipated additional clinical trials and may not result in receipt of the necessary regulatory approvals. Failure to receive the necessary regulatory approvals would prevent us from commercializing the product candidates affected. In addition, clinical trials of our potential products may fail to demonstrate safety and efficacy, which could prevent or significantly delay regulatory approval.

For further discussion on research and development activities, see "Research and Development Expense" under "Results of Operations" below.

Critical Accounting Policies and the Use of Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP). The preparation of these financial statements requires us to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. We evaluate our estimates, including those related to our stock based compensation and the probability of achievement of corporate performance-based milestone for our performance-based stock option awards, impairment issues, the estimated useful life of assets, and estimated accruals, particularly research and development accruals, on an ongoing basis. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe that there were no significant changes in our critical accounting policies during the year ended December 31, 2016 as compared to those previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2015. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our financial statements:

Revenue Recognition

We present revenue from our collaboration arrangements under the FASB ASC 808, *Collaboration Arrangements*. The terms of these agreements generally contain multiple elements, or deliverables, which may include (i) granting of license rights to our program, (ii) participation in a joint research committee, (iii) performance of research activities, and (iv) clinical supply and materials. The payments we receive under these arrangements typically include one or more of the following: non-refundable, up-front fees; funding of research and/or development efforts; contingent fees due upon the achievement of specified triggering events; and/or royalties on future product sales. We recognize revenue for the performance of services or the delivery of products when each of the following four criteria is met: (i) persuasive evidence of an arrangement exists; (ii) products are delivered or as services are rendered; (iii) the sales price is fixed or determinable; and (iv) collectability is reasonably assured.

Our revenue arrangements with multiple elements are evaluated under FASB ASC 605-25, *Multiple Element Arrangements*, and are divided into separate units of accounting if certain criteria are met, including whether the deliverables have stand-alone value, based on the relevant facts and circumstances for each arrangement. The consideration we receive under collaboration arrangements is allocated among the separate units of accounting based on the selling price hierarchy, and the applicable revenue recognition criteria is applied to each of the separate units. We make significant judgments and estimates in the allocation of the consideration among the deliverables under the agreement, as well as the determination of the periods the units will be delivered to our collaborators. If there are deliverables in an arrangement that are not separable from other aspects of the contractual relationship, they are treated as a combined unit of accounting, with the allocated revenue for the combined unit recognized in a manner consistent with the revenue recognition applicable to the final deliverable in the combined unit. Payments received prior to satisfying the relevant revenue recognition criteria are recorded as deferred revenue in the accompanying balance sheets and recognized as revenue when the revenue recognition criteria are met.

We typically receive non-refundable, up-front payments when licensing our intellectual property, which often occurs in conjunction with a research and development agreement. If we believe that the license to our intellectual property has stand-alone value, we generally recognize revenue attributed to the license upon delivery provided that there are no future performance requirements for use of the license. When we believe that the license to our intellectual property does not have stand-alone value, we would recognize revenue attributed to the license ratably from the effective date of the agreement or the delivery of the license up to the estimated completion date of the undelivered performance obligation. Revenues related to the research services with our corporate collaborators are recognized as research services are performed over the related research period. Under these agreements, we are required to perform research activities as specified in the agreement. The payments received are not refundable and are based on a contractual cost per full-time equivalent employee working on the project. Our research and development expenses under the collaborative research agreements approximate the revenue recognized under such agreements over the research period.

Revenues associated with substantive, at-risk milestones pursuant to collaborative agreements are recognized upon achievement of the milestones. We consider a milestone to be substantive at the inception of the arrangement if it is commensurate with either our performance to achieve the milestone or the enhancement of the value of the delivered item as a result of a specific outcome resulting from our performance to achieve the milestone, it relates solely to past performance and it is reasonable relative to all of the deliverables and payment terms within the arrangement. Non-refundable contingent future amounts receivable in connection with future events specified in collaboration agreements that are not considered milestones such as payments contingent solely upon the passage of time or the result of our collaborator's performance will be recognized as revenue when the recognition criteria discussed above are met.

Stock-Based Compensation

We grant options to purchase our common stock to our officers, directors and all other employees and consultants under our stock option plans. Eligible employees can also purchase shares of our common stock at a price per share equal to the lesser of 85% of the fair market value on the first day of the offering period or 85% of the fair market value on the purchase date under our employee stock purchase plan (Purchase Plan). The benefits provided under these plans are stock-based payments subject to the provisions of FASB ASC 718. We adopted the use of the straight-line attribution method over the requisite service period for each entire stock award. In addition, we estimate the amount of expected forfeitures when calculating compensation costs, then record actual forfeitures as they occur. We review our forfeiture rates each quarter and make any necessary changes to our estimates.

The determination of the fair value of stock-based payment awards on the date of grant using the Black-Scholes option-pricing model is affected by our stock price, as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, volatility, expected term, risk-free interest rate and dividends. We estimate volatility over the expected term of the option using historical share price performance. For expected term, among other things, we take into consideration our historical data of options exercised, cancelled and expired. The risk-free rate is based on the U.S. Treasury constant maturity rate. We have not paid and do not expect to pay dividends in the foreseeable future. In order to calculate stock-based compensation expense, we also estimate the forfeiture rate using our historical experience with options that cancel before they vest.

We granted performance-based stock options to purchase shares of our common stock which will vest upon the achievement of certain corporate performance-based milestones. We determined the fair values of these performance-based stock options using the Black-Scholes option pricing model at the date of grant. For the portion of the performance-based stock options of which the performance condition is considered probable of achievement, we recognize stock-based compensation expense on the related estimated fair value of such options on a straight-line basis from the date of grant up to the date when we expect the performance condition will be achieved. For the performance conditions that are not considered probable of achievement at the grant date or upon quarterly re-evaluation, prior to the event actually occurring, we recognize the related stock-based compensation expense when the event occurs or when we can determine that the performance condition is probable of achievement. In those cases, we recognize the change in estimate at the time we determine the condition is probable of achievement (by recognizing stock-based compensation expense as cumulative catch-up adjustment as if we had estimated at the grant date that the performance condition would have been achieved) and recognize the remaining compensation cost up to the date when we expect the performance condition will be achieved, if any. During the year ended December 31, 2016, we recognized $1.8 million of stock-based compensation expense relating to certain performance-based stock options granted in 2014, 2015 and 2016 in which the corresponding corporate performance-based milestones have been achieved or were considered probable of achievement as of December 31, 2016. At December 31, 2016, total unrecognized compensation cost related to certain performance-based stock options, with various performance conditions, was $458,000.

Research and Development Accruals

We have various contracts with third parties related to our research and development activities. Costs that are incurred for services rendered, but not billed to us, as of the end of the period are estimated and accrued. We make estimates of the amounts incurred in each period based on the information available to us and our knowledge of the nature of the contractual activities generating such costs. Expenses related to other research and development contracts, such as research contracts, toxicology study contracts and manufacturing contracts are estimated to be incurred generally on a straight-line basis over the duration of the contracts. Raw materials and study materials purchased for us by third parties are expensed at the time of purchase. Many of our estimates are based significantly or in part on information provided for us by third parties. If such information were not reported properly, our research and development expense amounts could be misstated.

Leases

We currently lease our research and office space under a noncancelable lease agreement with our landlord through January 2018. In December 2014, we entered into a sublease agreement with an unrelated third party to occupy a portion of our research and office space. In connection with this sublease, we recognized a loss on the sublease of $9.3 million during the fourth quarter of 2014. We record rent expense on a straight-line basis for our lease, net of sublease income, wherein such arrangements contain scheduled rent increases over the term of the lease and sublease, respectively. For our sublease arrangement which we classified as an operating lease, our loss on the sublease is comprised of the present value of our future payments to our landlord less the present value of our future rent payments expected from our subtenant over the term of the sublease. The present value factor, which also affects the level of accreted interest expense that we will recognize as additional charges over the term of the lease, is based on our estimate of our credit-risk adjusted borrowing rate at the time the initial sublease liability is calculated. Our estimate of our credit-risk adjusted borrowing rate was based on our comparison of the rates used by other companies of our size, our financial condition at the time we entered into such sublease agreement, as well as other factors that would affect our credit worthiness.

Results of Operations

Year Ended December 31, 2016, 2015 and 2014

Revenues

	Year Ended December 31,			Aggregate Change	Aggregate Change
	2016	2015	2014	2016 from 2015	2015 from 2014
	(in thousands)				
Contract revenues from collaborations	$ 20,383	$ 28,895	$ 8,250	$ (8,512)	$ 20,645

Contract revenues from collaborations of $20.4 million in 2016 were comprised of the amortization of the $30.0 million upfront payment of $13.4 million, contingent payment of $3.0 million, and the FTE fees we earned from BMS of $290,000, as well as the contingent payment of $3.7 million we received from BerGenBio. Contract revenues from collaborations of $28.9 million in 2015 were comprised of the amortization of the $30.0 million upfront payment from BMS of $16.6 million and the FTE fees we earned from BMS of $822,000 as well as the upfront payments received from our other collaborative partners in the aggregate of $11.5 million. Contract revenues from collaborations of $8.3 million in 2014 consisted of $5.8 million associated with the non-refundable time-based payment and $2.5 million payment from AZ for their continued development of R256 in asthma.

We do not have any deferred revenue as of December 31, 2016. Our potential future revenues may include payments from our current partners and from new partners with whom we enter into agreements in the future, if any, the timing and amount of which is unknown at this time.

Research and Development Expenses

	Year Ended December 31,			Aggregate Change	Aggregate Change
	2016	2015	2014	2016 from 2015	2015 from 2014
	(in thousands)				
Research and development expense	$ 63,446	$ 62,825	$ 67,696	$ 621	$ (4,871)
Stock-based compensation expense included in research and development expense	$ 3,103	$ 4,100	$ 4,674	$ (997)	$ (574)

The increase in research and development expense for the year ended December 31, 2016, compared to the same period in 2015, was primarily due to the increase in research and development costs related to our fostamatinib in ITP and AIHA programs, partially offset by the decreases in personnel costs and stock based compensation due to the reduction in workforce in September 2016. The decrease in research and development expense for the year ended

December 31, 2015, compared to the same period in 2014, was primarily due to the decrease in facilities costs resulting from the sublease agreement executed in December 2014, the completion in 2014 of a Phase 2 study of R348 in dry eye and the discontinuation of our indirect AMPK activator program, R118, in 2014, partially offset by the increases in bonus compensation expense and research and development costs related to our Phase 3 clinical program in ITP.

We expect our research and development expense in 2017 to decrease as a result of the reduction in workforce in September 2016, as well as the completion of the pivotal Phase 3 clinical trials in ITP in 2016.

General and Administrative Expense

	Year Ended December 31,			Aggregate Change	Aggregate Change
	2016	2015	2014	2016 from 2015	2015 from 2014
			(in thousands)		
General and administrative expense	$ 20,908	$ 17,813	$ 22,501	$ 3,095	$ (4,688)
Stock-based compensation expense included in general and administrative expense	$ 4,230	$ 3,303	$ 5,113	$ 927	$ (1,810)

The increase in general and administrative expense for the year ended December 31, 2016, compared to the same period in 2015, was primarily due to the commercial launch costs incurred in preparation for a potential commercial launch of fostamatinib in ITP, as well as the recognition of stock-based compensation expense relating to certain performance-based stock options granted in 2016, 2015 and 2014 in which the corresponding corporate performance-based milestones have been achieved or were considered probable of achievement as of December 31, 2016. The decrease in general and administrative expense for the year ended December 31, 2015, compared to the same period in 2014, was primarily due to the decreases in personnel costs due to the retirement of our former Chief Executive Officer (CEO) in December 2014, as discussed below, and facilities costs as a result of the sublease agreement executed in December 2014.

In December 2014, we entered into a severance agreement with our former CEO. The severance agreement provides for cash severance payments payable in installments over a duration of 18 months beginning on January 1, 2015. As part of the severance arrangement we offered, we extended the date to which our former CEO had the right to exercise his vested options within 90 days from his termination date as was stipulated under his option agreement to the end of the contractual term of the options, of which the remaining contractual term for the most recently granted options is nine years. In addition, we also accelerated the vesting period of certain of his unvested stock options. As a result of these modifications, we recorded incremental stock-based compensation expense in the fourth quarter of 2014.

We expect our general and administrative expense in 2017 to increase as we as continue our efforts in preparation for potential commercial launch of fostamatinib in ITP in the U.S in 2018.

Loss on Sublease

	Year Ended December 31,			Aggregate Change	Aggregate Change
	2016	2015	2014	2016 from 2015	2015 from 2014
			(in thousands)		
Loss on sublease	$ —	$ —	$9,302	$ —	$ (9,302)

In December 2014, we entered into a sublease arrangement whereby we sublet 56,750 square feet or approximately 39% of our research and office space and recorded a loss on sublease of $9.3 million. The loss on the sublease is derived from the present value of the excess of our future remaining payments to our landlord associated with the applicable subleased space over our contractual sublease income from our subtenant over the term of the sublease.

Restructuring Charges

	Year Ended December 31,			Aggregate Change	Aggregate Change
	2016	2015	2014	2016 from 2015	2015 from 2014
	(in thousands)				
Restructuring charges	$5,770	$ —	$ —	$ 5,770	$ —
Stock-based compensation expense included in restructuring charges	$ 499	$ —	$ —	$ 499	$ —

In September 2016, we announced that we had reduced our workforce by 46 positions, mostly in the research area. We also announced that effective September 15, 2016, Donald G. Payan, M.D, has retired from the board of directors and from his position as Executive Vice President and President of Discovery and Research. We recorded restructuring charges during the year ended December 31, 2016 of approximately $5.8 million within Restructuring Charges in the accompanying Statement of Operations, which included $5.0 million of severance costs paid in cash, $319,000 impairment of certain property and equipment, and $499,000 of non-cash stock-based compensation expense as a result of the modification of our former executive's stock options. At December 31, 2016, the remaining accrued restructuring cost was $712,000 related to COBRA benefits and outplacement costs and is classified under Accrued Compensation in the Balance Sheet.

Interest income

	Year Ended December 31,			Aggregate Change	Aggregate Change
	2016	2015	2014	2016 from 2015	2015 from 2014
	(in thousands)				
Interest income	$ 437	$ 222	$ 243	$ 215	$ (21)

Interest income results from our interest-bearing cash and investment balances. The increase in interest income for the year ended December 31, 2016, as compared to the same period in 2015, was primarily due to the higher yield on our investments. The decrease in interest income for the year ended December 31, 2015, as compared to the same period in 2014, was primarily due to lower average cash balance of our short-term investments.

Recent Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09—*Revenue from Contracts with Customers*, which supersedes the revenue recognition requirements under ASC Topic 605, *Revenue Recognition*, and most industry-specific guidance under the ASC. The core principle of ASU No. 2014-09 is that an entity should recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU No. 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 required under existing U.S. GAAP including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. ASU No. 2014-09 also requires additional disclosures to enable users of financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. ASU No. 2014-09 allows for either full retrospective or modified retrospective adoption. In July 2015, the FASB deferred by one year the effective date of ASU No. 2014-09 with the new effective date beginning after December 15, 2017, and the interim periods within that year and will allow early adoption for all entities as of the original effective date for public business entities, which was annual reporting periods beginning after December 15, 2016. We plan to adopt this new standard on January 1, 2018 using the modified retrospective approach. The adoption of ASU No. 2014-09 may have a material effect on our financial statements. To date, our revenues have been derived from license and collaboration agreements. The consideration we are eligible to receive under these agreements includes upfront payments, progress dependent contingent payments on events achieved by our collaboration partners, and royalties on net sales of products sold by such partners under the agreements. Each license and collaboration agreement is unique and will need to be assessed separately under the five-step process of the new standard. We have performed a preliminary assessment for our active license and collaboration agreements. Based on our preliminary assessment, we expect that the timing of recognition for certain contingent payments relating to our active license and collaboration agreements may be impacted by adoption of the new standard. ASU No. 2014-09 differs from the current accounting standard in many respects, such as in the accounting for variable consideration, including milestone payments or contingent payments. Under our current accounting policy, we recognize contingent payments as revenue in the period that the payment-triggering event occurred or is achieved. However, under the new accounting standard, it is possible to start to recognize contingent payments before the payment-triggering event is completely 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 February 2016, the FASB issued ASU No. 2016-02—*Leases*, which is aimed at making leasing activities more transparent, 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. The guidance is effective for all interim and annual reporting periods beginning after December 15, 2018. Early adoption is permitted. We plan to adopt this new standard on January 1, 2019. We are currently evaluating the potential impact of the adoption of ASU No. 2016-02 on our financial statements and cannot estimate the impact of adoption at this time.

In March 2016, the FASB issued ASU No. 2016-09—*Improvements to Employee Share-Based Payment Accounting*, which is intended to simplify several aspects of the accounting for share-based payment award transactions, including the income tax consequences, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. The guidance will be effective for the fiscal year beginning after December 15, 2016, including interim periods within that year. We plan to adopt this new standard on January 1, 2017 and do not expect a material impact on our financial statements.

Liquidity and Capital Resources

Cash Requirements

From inception, we have financed our operations primarily through sales of equity securities, and contract payments under our collaboration agreements. We have consumed substantial amounts of capital to date as we continue our research and development activities, including preclinical studies and clinical trials.

As of December 31, 2016, we had approximately $74.8 million in cash, cash equivalents and short-term investments, as compared to approximately $126.3 million as of December 31, 2015, a decrease of approximately $51.5 million. The decrease was primarily attributable to the payments associated with funding our operating expenses for the year ended December 31, 2016. In December 2016, we received $3.0 million payment from BMS pursuant to our collaboration agreement entered into in February 2015. In June 2016, we received payments from BerGenBio amounting to $3.7 million pursuant to our exclusive license agreement which we signed in June 2011. In August 2015, we entered into a Controlled Equity Offering[SM] Sales Agreement with Cantor, as sales agent, pursuant to which we may sell, through Cantor, up to an aggregate of $30.0 million in shares of our common stock. During the year ended December 31, 2016, 7,895,563 shares of common stock were sold under the Sales Agreement, with an aggregate proceeds of $24.3 million. In December 2014, we entered into a sublease agreement with an unrelated third party to occupy a portion of our research and office space. We expect to receive approximately $3.1 million in future sublease income (excluding our subtenant's share of facility's operating expenses) over the remaining term of the sublease through January 2018. During the year ended December 31, 2016, we received approximately $4.5 million of sublease income and reimbursements. In February 2017, we completed an underwritten public offering in which we sold 23,000,000 shares of our common stock pursuant to an effective registration statement at a price to the public of $2.00 per share. We received net proceeds of approximately $43.0 million after deducting underwriting discounts and commissions and estimated offering expenses. We believe that our existing capital resources will be sufficient to support our current and projected funding requirements, including the preparation for potential commercial launch of fostamatinib in ITP in the U.S., through at least the next 12 months. We also continue to evaluate ex-U.S. partnerships for fostamatinib and other partnering opportunities across our pipelines. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development of our product candidates and other research and development activities, including risks and uncertainties that could impact the rate of progress of our development activities, we are unable to estimate with certainty the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials and other research and development activities.

Our operations will require significant additional funding for the foreseeable future. Unless and until we are able to generate a sufficient amount of product, royalty or milestone revenue, we expect to finance future cash needs through public and/or private offerings of equity securities, debt financings and/or collaboration and licensing arrangements, and to a much lesser extent through interest income earned on the investment of our excess cash balances and short term investments. With the exception of contingent and royalty payments that we may receive under our existing collaborations, we do not currently have any committed future funding. To the extent we raise additional capital by issuing equity securities, our stockholders could at that time experience substantial dilution. Any debt financing that we are able to obtain may involve operating covenants that restrict our business. To the extent that we raise additional funds through collaboration and licensing arrangements, we may be required to relinquish some of our rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us.

Our future funding requirements will depend upon many factors, including, but not limited to:

- the FDA's acceptance of our NDA, or the successful regulatory approval of such NDA;
- the outcome of any potential FDA advisory committee meetings held for any of our product candidates;
- the progress and success of our clinical trials and preclinical activities (including studies and manufacture of materials) of our product candidates conducted by us;
- the progress of research and development programs carried out by us and our collaborative partners;
- the costs and timing of regulatory filings and approvals by us and our collaborators;
- the costs to build and expand our sales, marketing and distribution capabilities;
- the costs to commercialize fostamatinib or any other future product candidates, if any such candidate receives regulatory approval for commercial sale;
- any changes in the breadth of our research and development programs;
- the ability to achieve the events identified in our collaborative agreements that may trigger payments to us from our collaboration partners;
- our ability to acquire or license other technologies or compounds that we may seek to pursue;
- our ability to manage our growth;
- competing technological and market developments;
- the costs and timing of obtaining, enforcing and defending our patent and other intellectual property rights; and
- expenses associated with any unforeseen litigation, including any securities class action lawsuits.

Insufficient funds may require us to delay, scale back or eliminate some or all of our research or development programs, to lose rights under existing licenses or to relinquish greater or all rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise choose or may adversely affect our ability to operate as a going concern.

For the years ended December 31, 2016 and 2015, we maintained an investment portfolio primarily in money market funds, U. S. treasury bills, government-sponsored enterprise securities, and corporate bonds and commercial paper. Cash in excess of immediate requirements is invested with regard to liquidity and capital preservation. Wherever possible, we seek to minimize the potential effects of concentration and degrees of risk. We will continue to monitor the impact of the changes in the conditions of the credit and financial markets to our investment portfolio and assess if future changes in our investment strategy are necessary.

Cash Flows from Operating, Investing and Financing Activities

	Year Ended December 31,		
	2016	2015	2014
		(in thousands)	
Net cash provided by (used in):			
Operating activities	$ (75,889)	$ (23,413)	$ (69,753)
Investing activities	24,881	44,613	62,932
Financing activities	25,184	7,053	1,170
Net increase (decrease) in cash and cash equivalents	$ (25,824)	$ 28,253	$ (5,651)

Net cash used in operating activities was approximately $75.9 million in 2016 compared to approximately $23.4 million and $69.8 million in 2015 and 2014, respectively. Net cash used in operating activities in 2016 was primarily due to the cash payments related to our research and development programs and severance payments as a result of the reduction in workforce in September 2016, partially offset by the $3.7 million and $3.0 million payments we received from BerGenBio and BMS, respectively. Net cash used in operating activities in 2015 and 2014 were primarily due to the cash payments related to our research and development programs, partially offset by the $41.5 million and $8.3 million payments we received in 2015 and 2014, respectively, from our collaborative partners. The timing of cash requirements may vary from period to period depending on our research and development activities, including our planned preclinical and clinical trials, and future requirements to establish commercial capabilities for any products that we may develop.

Net cash provided by investing activities was approximately $24.9 million in 2016 compared to approximately $44.6 million and $62.9 million in 2015 and 2014, respectively. Net cash provided by investing activities in 2016, 2015 and 2014 related to net maturities of short-term investments, partially offset by capital expenditures. Capital expenditures were approximately $804,000, $546,000 and $413,000 in 2016, 2015 and 2014, respectively.

Net cash provided by financing activities was approximately $25.2 million in 2016 compared to approximately $7.1 million and $1.2 million in 2015 and 2014, respectively. Net cash provided by financing activities in 2016 and 2015 consisted of net proceeds from issuance of shares under the Controlled Equity Offering Sales Agreement of $23.6 million and $5.3 million, respectively, as well as proceeds from exercise of outstanding options and issuance of shares under the Purchase Plan of $1.6 million and $1.8 million, respectively. Net cash provided by financing activities in 2014 related to the proceeds from the exercise of outstanding options and issuance of shares under the Purchase Plan.

Off-Balance Sheet Arrangements

As of December 31, 2016, we had no off-balance sheet arrangements (as defined in Item 303(a)(4)(ii) of Regulation S-K under the Exchange Act).

Contractual Obligations

We conduct our research and development programs internally and through third parties that include, among others, arrangements with universities, consultants and contract research organizations (CRO). We have contractual arrangements with these parties, however our contracts with them are cancelable generally on reasonable notice within one year and our obligations under these contracts are primarily based on services performed. We do not have any purchase commitments under any collaboration arrangements.

We have agreements with certain CROs to conduct our clinical trials. The timing of payments for any amounts owed under the respective agreements will depend on various factors including, but not limited to, patient enrollment and other progress of the clinical trial. We can terminate these agreements at any time, and if terminated, we would not be liable for the full amount of the respective agreements. Instead, we will be liable for services through the termination date plus certain cancellation charges, if any, as defined in each of the respective agreements. In addition, these agreements may, from time to time, be subjected to amendments as a result of any change orders executed by the parties.

As of December 31, 2016, we had the following contractual commitments:

			Payment Due By Period		
	Total	Less than 1 Year	1 - 3 Years	3 - 5 Years	More than 5 Years
	(in thousands)				
Facilities lease (1)	$ 17,504	$ 16,153	$ 1,351	$ —	$ —

(1) In December 2014, we entered into a sublease agreement with an unrelated third party to lease up a portion of the research and office space. The facilities lease obligations above do not include the sublease income of approximately $3.1 million over the remaining term of the sublease.

Item 7A. Quantitative and Qualitative Disclosures about Market Ris k

The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. Some of the securities in which we invest may have market risk. This means that a change in prevailing interest rates may cause the fair value amount of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the prevailing interest rate later rises, the market value amount of our investment will decline. To minimize this risk, we maintain our portfolio of cash equivalents and short-term investments in a variety of securities, including money market funds and government and non-government debt securities and the maturities of each of these instruments is less than one year. In 2016, we maintained an investment portfolio primarily in money market funds, U. S. treasury bills, government-sponsored enterprise securities, and corporate bonds and commercial paper. Due to the primarily short-term nature and low interest rate yields of these investments, we believe we do not have a material exposure to interest rate risk and market risk arising from our investments. Therefore, no quantitative tabular disclosure is provided.

We have operated primarily in the United States, and all funding activities with our contract research organizations to date have been made in U.S. dollars. Accordingly, we have not had any significant exposure to foreign currency rate fluctuations.

Item 8. Financial Statements and Supplementary Data

INDEX TO FINANCIAL STATEMENTS
Rigel Pharmaceuticals, Inc.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Rigel Pharmaceuticals, Inc.

We have audited the accompanying balance sheets of Rigel Pharmaceuticals, Inc. as of December 31, 2016 and 2015, and the related statements of operations, comprehensive 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, as well as 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 Rigel Pharmaceuticals, Inc. 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), Rigel Pharmaceuticals, 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 March 7, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Redwood City, California
March 7, 2017

RIGEL PHARMACEUTICALS, INC.

BALANCE SHEETS

(In thousands, except share and per share amounts)

	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$ 17,632	$ 43,456
Short-term investments	57,134	82,820
Accounts receivable	—	203
Prepaid and other current assets	1,448	2,545
Total current assets	76,214	129,024
Property and equipment, net	1,156	1,613
Other assets	764	1,110
	$ 78,134	$ 131,747
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 5,563	$ 2,763
Accrued compensation	4,085	6,251
Accrued research and development	5,881	4,953
Other accrued liabilities	1,033	1,133
Deferred revenue	—	13,427
Deferred liability – sublease, current portion	3,222	3,005
Deferred rent, current portion	2,804	2,264
Total current liabilities	22,588	33,796
Long-term portion of deferred liability – sublease	238	3,460
Long-term portion of deferred rent	279	3,083
Other long-term liabilities	2	27
Commitments		
Stockholders' equity:		
Preferred stock, $0.001 par value; 10,000,000 shares authorized; none issued and outstanding as of December 31, 2016 and 2015	—	—
Common stock, $0.001 par value; 200,000,000 shares authorized; 99,269,418 and 90,554,589 shares issued and outstanding as of December 31, 2016 and 2015, respectively	100	91
Additional paid-in capital	1,115,807	1,082,980
Accumulated other comprehensive loss	(18)	(44)
Accumulated deficit	(1,060,862)	(991,646)
Total stockholders' equity	55,027	91,381
	$ 78,134	$ 131,747

See accompanying notes.

RIGEL PHARMACEUTICALS, INC.

STATEMENTS OF OPERATIONS

(In thousands, except per share amounts)

	Year Ended December 31, 2016	2015	2014
Contract revenues from collaborations	$ 20,383	$ 28,895	$ 8,250
Costs and expenses:			
Research and development	63,446	62,825	67,696
General and administrative	20,908	17,813	22,501
Restructuring charges	5,770	—	—
Loss on sublease	—	—	9,302
Total costs and expenses	90,124	80,638	99,499
Loss from operations	(69,741)	(51,743)	(91,249)
Interest income	437	222	243
Gain on disposal of assets	88	57	98
Net loss	$ (69,216)	$ (51,464)	$ (90,908)
Net loss per share, basic and diluted	$ (0.73)	$ (0.58)	$ (1.04)
Weighted average shares used in computing net loss per share, basic and diluted	94,387	88,434	87,662

See accompanying notes.

RIGEL PHARMACEUTICALS, INC.

STATEMENTS OF COMPREHENSIVE LOSS

(In thousands)

	Year Ended December 31,		
	2016	2015	2014
Net loss	$ (69,216)	$ (51,464)	$ (90,908)
Other comprehensive income (loss):			
Net unrealized gain (loss) on short-term investments	26	(37)	(54)
Comprehensive loss	$ (69,190)	$ (51,501)	$ (90,962)

See accompanying notes.

RIGEL PHARMACEUTICALS, INC.

STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except share and per share amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance at January 1, 2014	87,524,349	$ 88	$ 1,057,390	$ 47	$ (849,274)	208,251
Net loss	—	—	—	—	(90,908)	(90,908)
Net change in unrealized gain on short-term investments	—	—	—	(54)	—	(54)
Issuance of common stock upon exercise of options and participation in Purchase Plan	517,096	—	1,170	—	—	1,170
Stock compensation expense	—	—	9,787	—	—	9,787
Balance at December 31, 2014	88,041,445	88	1,068,347	(7)	(940,182)	128,246
Net loss	—	—	—	—	(51,464)	(51,464)
Net change in unrealized loss on short-term investments	—	—	—	(37)	—	(37)
Issuance of common stock upon exercise of options and participation in Purchase Plan	790,832	1	1,760	—	—	1,761
Issuance of common stock, net of offering costs	1,722,312	2	5,470	—	—	5,472
Stock compensation expense	—	—	7,403	—	—	7,403
Balance at December 31, 2015	90,554,589	91	1,082,980	(44)	(991,646)	91,381
Net loss	—	—	—	—	(69,216)	(69,216)
Net change in unrealized loss on short-term investments	—	—	—	26	—	26
Issuance of common stock upon exercise of options and participation in Purchase Plan	819,266	1	1,597	—	—	1,598
Issuance of common stock, net of offering costs	7,895,563	8	23,398	—	—	23,406
Stock compensation expense	—	—	7,832	—	—	7,832
Balance at December 31, 2016	99,269,418	$ 100	$ 1,115,807	$ (18)	$ (1,060,862)	$ 55,027

See accompanying notes.

RIGEL PHARMACEUTICALS, INC.

STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended December 31,		
	2016	2015	2014
Operating activities			
Net loss	$ (69,216)	$ (51,464)	$ (90,908)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	941	1,439	2,359
Stock-based compensation expense	7,333	7,403	9,787
Non-cash restructuring charges	818	—	—
Net amortization of premium on short-term investment	115	—	—
Gain on disposal of assets	(88)	(57)	(98)
Loss on sublease	—	—	9,302
Changes in assets and liabilities:			
Accounts receivable	203	5,547	—
Prepaid and other current assets	1,097	(917)	722
Other assets	167	159	439
Accounts payable	2,800	1,150	(2,290)
Accrued compensation	(2,166)	3,419	(17)
Accrued research and development	928	960	2,405
Other accrued liabilities	(100)	599	(212)
Deferred revenue	(13,427)	13,427	—
Deferred rent and other long term liabilities	(5,294)	(5,078)	(1,242)
Net cash used in operating activities	(75,889)	(23,413)	(69,753)
Investing activities			
Purchases of short-term investments	(103,053)	(151,763)	(218,594)
Maturities of short-term investments	128,650	196,862	281,705
Proceeds from disposal of assets	88	60	234
Capital expenditures	(804)	(546)	(413)
Net cash provided by investing activities	24,881	44,613	62,932
Financing activities			
Net proceeds from issuances of common stock upon exercise of options and participation in employee stock purchase plan	1,598	1,761	1,170
Proceeds from sale and issuance of common stock, net of offering costs	23,586	5,292	—
Net cash provided by financing activities	25,184	7,053	1,170
Net increase (decrease) in cash and cash equivalents	(25,824)	28,253	(5,651)
Cash and cash equivalents at beginning of period	43,456	15,203	20,854
Cash and cash equivalents at end of period	$ 17,632	$ 43,456	$ 15,203

See accompanying notes.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS

In this Annual Report on Form 10-K, "Rigel," "we," "us" and "our" refer to Rigel Pharmaceuticals, Inc. and "common stock" refers to Rigel's common stock, par value $0.001 per sha re.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of operations and basis of presentation

We were incorporated in the state of Delaware on June 14, 1996. We are engaged in the discovery and development of novel, targeted drug candidates in the therapeutic areas of immunology, oncology and immuno-oncology.

Use of estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Significant estimates and assumptions made by management include those relating to our stock based compensation and the probability of achievement of corporate performance-based milestone for our performance-based stock option awards, impairment issues, the estimated useful life of assets, and estimated accruals, particularly research and development accruals. We believe that the estimates and judgments upon which we rely are reasonable based upon information available to us at the time that these estimates and judgments are made, however actual results could differ from these estimates. To the extent there are material differences between these estimates and actual results, our financial statements will be affected.

Stock award plans

We have four stock option plans, our 2011 Equity Incentive Plan (2011 Plan), 2000 Equity Incentive Plan (2000 Plan), 2000 Non-Employee Directors Stock Option Plan (Directors' Plan) and Inducement Plan. The 2011 Plan, 2000 Plan and Directors' Plan provide for granting to our officers, directors and all other employees and consultants options to purchase shares of our common stock. The Inducement Plan is intended mainly to provide an inducement material for certain individuals to enter into employment with the Company. We also have our Employee Stock Purchase Plan (Purchase Plan), where eligible employees can purchase shares of our common stock at a price per share equal to the lesser of 85% of the fair market value on the first day of the offering period or 85% of the fair market value on the purchase date. The fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model which considered our stock price, as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, volatility, expected term, risk-free interest rate and dividends. We estimate volatility over the expected term of the option using historical share price performance. For expected term, we take into consideration our historical data of options exercised, cancelled and expired. The risk-free rate is based on the U.S. Treasury constant maturity rate. We have not paid and do not expect to pay dividends in the foreseeable future. In order to calculate stock- based compensation expense, we also estimate the forfeiture rate using our historical experience with options that cancel before they vest. We review our forfeiture rates each quarter and make any necessary changes to our estimates. We use the straight-line attribution method over the requisite employee service period for the entire award in recognizing stock-based compensation expense.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

We granted performance-based stock options to purchase shares of our common stock which will vest upon the achievement of certain corporate performance-based milestones. We determined the fair values of these performance-based stock options using the Black-Scholes option pricing model at the date of grant. For the portion of the performance-based stock options of which the performance condition is considered probable of achievement, we recognize stock-based compensation expense on the related estimated fair value of such options on a straight-line basis from the date of grant up to the date when we expect the performance condition will be achieved. For the performance conditions that are not considered probable of achievement at the grant date or upon quarterly re-evaluation, prior to the event actually occurring, we recognize the related stock-based compensation expense when the event occurs or when we can determine that the performance condition is probable of achievement. In those cases, we recognize the change in estimate at the time we determine the condition is probable of achievement (by recognizing stock-based compensation expense as cumulative catch-up adjustment as if we had estimated at the grant date that the performance condition would have been achieved) and recognize the remaining compensation cost up to the date when we expect the performance condition will be achieved, if any.

Cash, cash equivalents and short-term investments

We consider all highly liquid investments in debt securities with maturity from the date of purchase of 90 days or less to be cash equivalents. Cash equivalents consist of money market funds, U.S. treasury bills, corporate bonds and commercial paper and investments in government-sponsored enterprises. Our short-term investments include U.S. treasury bills, obligations of government- sponsored enterprises and corporate bonds and commercial paper. By policy, we limit the concentration of credit risk by diversifying our investments among a variety of high credit-quality issuers. We view our short-term investments portfolio as available for use in current operations. Accordingly, we have classified certain securities as short-term investments on our balance sheet even though the stated maturity date of these securities may be more than one year from the current balance sheet date.

All cash equivalents and short-term investments are classified as available-for-sale securities. Available-for-sale securities are carried at fair value at December 31, 2016 and 2015. Unrealized gains (losses) are reported in the statements of stockholders' equity and comprehensive loss. Fair value is estimated based on available market information or valuation methodologies. The cost of securities sold is based on the specific identification method. See Note 5 for a summary of available-for-sale securities at December 31, 2016 and 2015.

Fair value of financial instruments

The carrying values of cash, accounts receivable, prepaid and other current assets, accounts payable and accrued liabilities approximate fair value due to the short-term maturity of those instruments. Cash equivalents and short-term investments are carried at fair value at December 31, 2016 and 2015.

Concentration of credit risk

Financial instruments that potentially subject us to concentrations of credit risk are primarily cash and cash equivalents, short-term investments and accounts receivable. Cash equivalents and short-term investments primarily consist of money market funds, U. S. treasury bills, government-sponsored enterprise securities, and corporate bonds and commercial paper. Due to the short-term nature of these investments, we believe we do not have a material exposure to credit risk arising from our investments. All cash and cash equivalents and short-term investments are maintained with financial institutions that management believes are creditworthy. As of December 31, 2015, we had accounts receivable from BMS of $203,000 relating to our performance of research activities. We had no accounts receivable at December 31, 2016. To date, we have not experienced significant losses with respect to the collection of our accounts receivable and we believe that we do not have a material exposure to credit risk arising from our accounts receivable.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

Property and equipment

Property and equipment are stated at cost. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets, which range from three to seven years.

Revenue recognition

We present revenue from our collaboration arrangements under the FASB ASC 808,*Collaboration Arrangements*. The terms of these agreements generally contain multiple elements, or deliverables, which may include (i) granting of license rights to our program, (ii) participation in a joint research committee, (iii) performance of research activities, and (iv) clinical supply and materials. The payments we receive under these arrangements typically include one or more of the following: non-refundable, up-front fees; funding of research and/or development efforts; contingent fees due upon the achievement of specified triggering events; and/or royalties on future product sales. We recognize revenue for the performance of services or the delivery of products when each of the following four criteria is met: (i) persuasive evidence of an arrangement exists; (ii) products are delivered or as services are rendered; (iii) the sales price is fixed or determinable; and (iv) collectability is reasonably assured.

Our revenue arrangements with multiple elements are evaluated under FASB ASC 605-25,*Multiple Element Arrangements*, and are divided into separate units of accounting if certain criteria are met, including whether the deliverables have stand-alone value, based on the relevant facts and circumstances for each arrangement. The consideration we receive under collaboration arrangements is allocated among the separate units of accounting based on the selling price hierarchy, and the applicable revenue recognition criteria is applied to each of the separate units. We make significant judgments and estimates in the allocation of the consideration among the deliverables under the agreement, as well as the determination of the periods the units will be delivered to our collaborators. If there are deliverables in an arrangement that are not separable from other aspects of the contractual relationship, they are treated as a combined unit of accounting, with the allocated revenue for the combined unit recognized in a manner consistent with the revenue recognition applicable to the final deliverable in the combined unit. Payments received prior to satisfying the relevant revenue recognition criteria are recorded as deferred revenue in the accompanying balance sheets and recognized as revenue when the revenue recognition criteria are met.

We typically receive non-refundable, up-front payments when licensing our intellectual property, which often occurs in conjunction with a research and development agreement. If we believe that the license to our intellectual property has stand-alone value, we generally recognize revenue attributed to the license upon delivery provided that there are no future performance requirements for use of the license. When we believe that the license to our intellectual property does not have stand-alone value, we would recognize revenue attributed to the license ratably from the effective date of the agreement or the delivery of the license up to the estimated completion date of the undelivered performance obligation. Revenues related to the research services with our corporate collaborators are recognized as research services are performed over the related research period. Under these agreements, we are required to perform research activities as specified in the agreement. The payments received are not refundable and are based on a contractual cost per full-time equivalent employee working on the project. Our research and development expenses under the collaborative research agreements approximate the revenue recognized under such agreements over the research period.

Revenues associated with substantive, at-risk milestones pursuant to collaborative agreements are recognized upon achievement of the milestones. We consider a milestone to be substantive at the inception of the arrangement if it is commensurate with either our performance to achieve the milestone or the enhancement of the value of the delivered item as a result of a specific outcome resulting from our performance to achieve the milestone, it relates solely to past performance and it is reasonable relative to all of the deliverables and payment terms within the arrangement. Non-refundable contingent future amounts receivable in connection with future events specified in collaboration agreements that are not considered milestones such as payments contingent solely upon the passage of time or the result of our collaborator's performance will be recognized as revenue when the recognition criteria discussed above are met.

Research and development expenses

Research and development expenses include costs for scientific personnel, supplies, equipment, consultants, research sponsored by us, allocated facility costs, costs related to pre-clinical and clinical trials, including raw materials, and stock-based compensation expense. All such costs are charged to research and development expense as incurred and at the time raw materials are purchased.

Research and development accruals

We have various contracts with third parties related to our research and development activities. Costs that are incurred for services rendered, but not billed to us, as of the end of the period are estimated and accrued. We make estimates of the amounts incurred in each period based on the information available to us and our knowledge of the nature of the contractual activities generating such costs. Expenses related to other research and development contracts, such as research contracts, toxicology study contracts and manufacturing contracts are estimated to be incurred generally on a straight-line basis over the duration of the contracts. Raw materials and study materials purchased for us by third parties are expensed at the time of purchase.

Leases

We currently lease our research and office space under a noncancelable lease agreement with our landlord through January 2018. In December 2014, we entered into a sublease agreement with an unrelated third party to occupy a portion of our research and office space. In connection with this sublease, we recognized a loss on the sublease of $9.3 million during the fourth quarter of 2014. We record rent expense on a straight-line basis for our lease, net of sublease income, wherein such arrangements contain scheduled rent increases over the term of the lease and sublease, respectively. For our sublease arrangement which we classified as an operating lease, our loss on the sublease is comprised of the present value of our future payments to our landlord less the present value of our future rent payments expected from our subtenant over the term of the sublease. The present value factor, which also affects the level of accreted interest expense that we will recognize as additional charges over the term of the lease, is based on our estimate of our credit-risk adjusted borrowing rate at the time the initial sublease liability is calculated. Our estimate of our credit-risk adjusted borrowing rate was based on our comparison of the rates used by other companies of our size, our financial condition at the time we entered into such sublease agreement, as well as other factors that would affect our credit worthiness.

Income taxes

We use the asset and liability method to account for income taxes. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities from a change in tax rates is recognized in income in the period the change is enacted. A valuation allowance is established to reduce deferred tax assets to an amount whose realization is more likely than not.

Net loss per share

Basic net loss per share is computed by dividing net loss by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share is computed by dividing net loss by the weighted-average number of shares of common stock outstanding during the period and the number of additional shares of common stock that would have been outstanding if potentially dilutive securities had been issued. Potentially dilutive securities include warrant and stock options and shares issuable under our Purchase Plan. The dilutive effect of these potentially dilutive

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

securities is reflected in diluted earnings per share by application of the treasury stock method. Under the treasury stock method, an increase in the fair market value of our common stock can result in a greater dilutive effect from potentially dilutive securities.

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

	Year Ended December 31,		
	2016	2015	2014
EPS Numerator:			
Net loss	$ (69,216)	$ (51,464)	$ (90,908)
EPS Denominator—Basic and Diluted:			
Weighted-average common shares outstanding	94,387	88,434	87,662
Net loss per common share:			
Basic and diluted	$ (0.73)	$ (0.58)	$ (1.04)

During the periods presented, we had securities which could potentially dilute basic loss per share, but were excluded from the computation of diluted net loss per share for all periods presented, as their effect would have been antidilutive. These securities consist of the following (in thousands except per share data):

	December 31,		
	2016	2015	2014
Outstanding stock options	20,257	19,106	16,971
Warrant to purchase common stock	32	200	200
Weighted average exercise price of options	$ 6.25	$ 7.08	$ 9.07
Weighted average exercise price of warrant	$ 6.61	$ 6.61	$ 6.61

Recent accounting pronouncements

In May 2014, the FASB issued ASU No. 2014-09—*Revenue from Contracts with Customers*, which supersedes the revenue recognition requirements under ASC Topic 605, *Revenue Recognition*, and most industry-specific guidance under the ASC. The core principle of ASU No. 2014-09 is that an entity should recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU No. 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 required under existing U.S. GAAP including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. ASU No. 2014-09 also requires additional disclosures to enable users of financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. ASU No. 2014-09 allows for either full retrospective or modified retrospective adoption. In July 2015, the FASB deferred by one year the effective date of ASU No. 2014-09 with the new effective date beginning after December 15, 2017, and the interim periods within that year and will allow early adoption for all entities as of the original effective date for public business entities, which was annual reporting periods beginning after December 15, 2016. We plan to adopt this new standard on January 1, 2018 using the modified retrospective approach. The adoption of ASU No. 2014-09 may have a material effect on our financial statements. To date, our revenues have been derived from license and collaboration agreements. The consideration we are eligible to receive under these agreements includes upfront payments, progress dependent contingent payments on events achieved by our collaboration partners, and royalties on net sales of products sold by such partners under the agreements. Each license and collaboration agreement is unique and will need to be assessed separately under the five-step process of the new standard. We have performed a preliminary assessment for our active license and collaboration agreements. Based on our preliminary assessment, we expect that the timing of recognition for certain contingent payments relating to our active license and collaboration agreements may be impacted by adoption of the new standard. ASU No. 2014-09 differs from the current accounting standard in many respects, such as in the accounting for variable consideration, including milestone payments or contingent payments. Under our current accounting policy, we recognize contingent payments as revenue in the period that the payment-triggering event occurred or is achieved. However, under the new accounting standard, it is possible to start to recognize contingent payments before the payment-triggering event is completely 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 February 2016, the FASB issued ASU No. 2016-02—*Leases*, which is aimed at making leasing activities more transparent, 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. The guidance is effective for all interim and annual reporting periods beginning after December 15, 2018. Early adoption is permitted. We plan to adopt this new standard on January 1, 2019. We are currently evaluating the potential impact of the adoption of ASU No. 2016-02 on our financial statements and cannot estimate the impact of adoption at this time.

In March 2016, the FASB issued ASU No. 2016-09—*Improvements to Employee Share-Based Payment Accounting*, which is intended to simplify several aspects of the accounting for share-based payment award transactions, including the income tax consequences, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. The guidance will be effective for the fiscal year beginning after December 15, 2016, including interim periods within that year. We plan to adopt this new standard on January 1, 2017 and do not expect a material impact on our financial statements.

2. SPONSORED RESEARCH AND LICENSE AGREEMENTS

We conduct research and development programs independently and in connection with our corporate collaborators. We do not have ongoing participation obligations under our agreements with BMS for the discovery, development and commercialization of cancer immunotherapies based on our small molecule TGF beta receptor kinase inhibitors, Aclaris for the development and commercialization of JAK inhibitors for the treatment of alopecia areata and other dermatological conditions, AZ for the development and commercialization of R256, an inhaled JAK inhibitor, BerGenBio for the development and commercialization of an oncology program, and Daiichi to pursue research related to a specific target from a novel class of drug targets called ligases. Under these agreements, which we entered into in the ordinary course of business, we received or may be entitled to receive upfront cash payments, progress dependent contingent payments on events achieved by such partners and royalties on any net sales of products sold by such partners under the agreements. Total future contingent payments to us under all of these current agreements could exceed \$531.9 million if all potential product candidates achieved all of the payment triggering events under all of our current agreements (based on a single product candidate under each agreement). Of this amount, up to \$148.8 million relates to the achievement of development events, up to \$345.6 million relates to the achievement of regulatory events and up to \$37.5 million relates to the achievement of certain commercial or launch events. This estimated future contingent amount does not include any estimated royalties that could be due to us if the partners successfully commercialize any of the licensed products. Future events that may trigger payments to us under the agreements are based solely on our partners' future efforts and achievements of specified development, regulatory and/or commercial events.

In October 2015, we entered into a non-exclusive license agreement with a third party, pursuant to which we received a payment in the single-digit millions in exchange for granting a non-exclusive license to certain limited intellectual property rights. We concluded that the granting of the license, which was fully delivered to such third party in the fourth quarter of 2015, represents the sole deliverable under this agreement. Accordingly, we recognized the payment as revenue during the year ended December 31, 2015.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

In August 2015, we entered into a license agreement with Aclaris, pursuant to which Aclaris will have exclusive rights and will assume responsibility for the continued development of certain JAK inhibitor compounds for the treatment of alopecia areata and other dermatological conditions. Under the license agreement, we received a noncreditable and non-refundable upfront payment of $8.0 million in September 2015. We are also entitled to receive development and regulatory contingent fees that could exceed $80.0 million for a successful compound approved in certain indications. In addition, we are also eligible to receive tiered royalties on the net sales of any products under the agreement. We concluded that the granting of the license, which has been fully delivered to Aclaris in the third quarter of 2015, represents the sole deliverable under this agreement. Accordingly, we recognized the $8.0 million payment as revenue during the year ended December 2015.

In February 2015, we entered into a collaboration agreement with BMS for the discovery, development and commercialization of cancer immunotherapies based on our extensive portfolio of small molecule TGF beta receptor kinase inhibitors. Under the collaboration agreement, BMS will have exclusive rights and will be solely responsible for the clinical development and commercialization of any products. Pursuant to the collaboration agreement with BMS, we received a noncreditable and non-refundable upfront payment of $30.0 million in March 2015. We are also entitled to receive development and regulatory contingent fees that could exceed $309.0 million for a successful compound approved in certain indications. In addition, we are also eligible to receive tiered royalties on the net sales of any products from the collaboration. BMS shall also reimburse us for agreed upon costs based on a contractual cost per full-time equivalent employee in connection with the performance of research activities during the research term. Under the collaboration agreement, we were obligated to provide the following deliverables: (i) granting of license rights to our program, (ii) participation in the Joint Research Committee, and (iii) performance of research activities. We concluded that these deliverables were a single unit of accounting as the license did not have stand-alone value apart from the other deliverables. Accordingly, the $30.0 million upfront payment was recognized ratably as revenue from the effective date of the agreement through September 2016, the end of the research term. We believed that straight-line recognition of this revenue was appropriate as the research was performed ratably over the research period. At the end of the initial research term, we were not notified by BMS of its intention to extend the initial research term under which we would perform research activities. However, BMS does continue to evaluate compounds from the extensive portfolio under the agreement, on its own. During the years ended December 31, 2016 and 2015, we recognized revenue of $13.4 million and $16.6 million, respectively, relating to the upfront payment, and $290,000 and $822,000, respectively, relating to the research activities we performed. We do not have any deferred revenue as of December 31, 2016.

BMS is responsible for evaluating the compounds from the extensive portfolio under the agreement, on its own, for designation of a compound as an early candidate nomination. In November 2016, we were notified by BMS that it has designated one compound as an early drug candidate and received $3.0 million in December 2016, triggered by this development event. All deliverables under the agreement had been previously delivered, as such, the above payment was recognized as revenue during the fourth quarter of 2016.

In June 2011, we entered into an exclusive license agreement with BerGenBio for the development and commercialization of an oncology program. BerGenBio is responsible for all activities it wishes to perform under the license we granted to it. In June 2016, we received contingent payments of $1.7 million relating to a time-based non-refundable fee and $2.0 million relating to BerGenBio's exercise of certain option rights before the prescription period to exercise the rights expired. All deliverables under the agreement had been previously delivered, as such, the above payments of $3.7 million triggered by the above time-based and contingent events were recognized as revenue in the second quarter of 2016.

3. SIGNIFICANT CONCENTRATIONS

For the year ended December 31, 2016, BMS and BerGenBio accounted for 82% and 18% of our revenues, respectively. For the year ended December 31, 2015, BMS, Aclaris and another third party accounted for 60%, 28% and 12% of our revenues, respectively. For the year ended December 31, 2014, AZ accounted for all of our revenues. As of

December 31, 2015, we had accounts receivable from BMS of $203,000 relating to the performance of research activities. As of December 31, 2016, we had no accounts receivable.

4. STOCK-BASED COMPENSATION

Total stock-based compensation expense related to all of our stock-based awards was as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
General and administrative	$ 4,230	$ 3,303	$ 5,113
Research and development	3,103	4,100	4,674
Restructuring charges	499	—	—
Total stock-based compensation expense	$ 7,832	$ 7,403	$ 9,787

During the second quarter of 2016, we entered into severance agreements with certain employees. As part of the severance arrangements, we extended the date through which such former employees had the right to exercise their vested options. In addition, we also accelerated the vesting of certain unvested stock options granted to a former employee. As a result of these modifications, we recorded entire incremental stock-based compensation expense of $641,000 during the year ended December 31, 2016. The incremental compensation expense was computed based on the fair values of the modified awards on the respective modification dates. This amount is included as part of “Research and development expense” in the accompanying Statements of Operations.

In September 2016, we entered into a severance agreement with a former executive (see Note 11). As part of the severance arrangement we offered, we extended the date through which such former executive had the right to exercise his vested options. In addition, we also accelerated the vesting of certain of his unvested stock options. As a result of these modifications, we recorded the entire incremental stock-based compensation expense of approximately $499,000 during the year ended December 31, 2016. The incremental compensation expense was computed based on the fair values of the modified awards on the respective modification dates. This amount is included as part of “Restructuring charges” in the accompanying Statements of Operations.

In December 2014, we entered into a severance agreement with our former CEO. As part of the severance arrangement we offered, we extended the date through which such former employees had the right to exercise their vested options. In addition, we also accelerated the vesting period of certain of his unvested stock options. As a result of these modifications, we recorded the entire incremental stock-based compensation expense of approximately $1.5 million during the year ended December 31, 2014. The incremental compensation expense was computed based on the fair values of the modified awards on the respective modification dates. This amount is included as part of “General and administrative expense” in the accompanying Statements of Operations.

Employee Stock Option Plans

We have four stock option plans, our 2011 Equity Incentive Plan (2011 Plan), 2000 Equity Incentive Plan (2000 Plan), 2000 Non-Employee Directors Stock Option Plan (Directors’ Plan) and Inducement Plan. The 2011 Plan, 2000 Plan and Directors’ Plan provide for granting to our officers, directors and all other employees and consultants options to purchase shares of our common stock. The Inducement Plan is intended mainly to provide an inducement material for certain individuals to enter into employment with the Company.

Options granted under our 2011 Plan expire no later than ten years from the date of grant. Options may be granted with different vesting terms from time to time, ranging from zero to five years. As of December 31, 2016, a total of 12,678,697 shares of common stock were authorized for issuance under the 2011 Plan. There were 335,895 options to purchase shares exercised during the year ended December 31, 2016 under the 2011 Plan. Options under the 2000 Plan may be granted with different vesting terms from time to time, ranging from zero to five years. As of December 31, 2016, a total of 12,299,050 shares of common stock were authorized for issuance under the 2000 Plan. There were 625 options to purchase shares exercised during the year ended December 31, 2016 under the 2000 Plan. Options under the Directors' Plan may be granted for a maximum term 10 years. The exercise price of options under the Directors' Plan is equal to the fair market value of the common stock on the date of grant. As of December 31, 2016, a total of 1,188,182 shares of common stock were authorized for issuance under the Directors' Plan. There were no options to purchase shares exercised during the year ended December 31, 2016 under the Directors' Plan. Options granted under our Inducement Grant expire no later than ten years from the date of grant and may be granted with different vesting terms from time to time. As of December 31, 2016, a total of 640,000 shares of common stock were authorized for issuance under the Inducement Plan. There were no options to purchase shares exercised during the year ended December 31, 2016 under the Inducement Plan.

Pursuant to FASB ASC 718, we are required to estimate the amount of expected forfeitures when calculating compensation costs. We estimated the forfeiture rate using our historical experience of actual forfeitures. We adjust our stock-based compensation expense as actual forfeitures occur, review our estimated forfeiture rates each quarter and make changes to our estimate as appropriate.

The fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model. We have segregated option awards into the following three homogenous groups for the purposes of determining fair values of options: officers and directors, all other employees, and consultants.

We determined weighted-average valuation assumptions separately for each of these groups as follows:

- Volatility—We estimated volatility using the historical share price performance over the expected life of the option up to the point where we have historical market data. We also considered other factors, such as implied volatility, our current clinical trials and other company activities that may affect the volatility of our stock in the future. We determined that at this time historical volatility is more indicative of our expected future stock performance than implied volatility.

- Expected term—For options granted to consultants, we use the contractual term of the option, which is generally ten years, for the initial valuation of the option and the remaining contractual term of the option for the succeeding periods. We worked with various historical data to determine the applicable expected term for each of the other option groups. This data included: (1) for exercised options, the term of the options from option grant date to exercise date; (2) for cancelled options, the term of the options from option grant date to cancellation date, excluding nonvested option forfeitures; and (3) for options that remained outstanding at the balance sheet date, the term of the options from option grant date to the end of the reporting period and the estimated remaining term of the options. The consideration and calculation of the above data gave us reasonable estimates of the expected term for each employee group. We also considered the vesting schedules of the options granted and factors surrounding exercise behavior of the option groups, our current market price and company activity that may affect our market price. In addition, we considered the optionee type (i.e., officers and directors or all other employees) and other factors that may affect the expected term of the option.

- Risk-free interest rate—The risk-free interest rate is based on U.S. Treasury constant maturity rates with similar terms to the expected term of the options for each option group.

- Dividend yield—The expected dividend yield is 0% as we have not paid and do not expect to pay dividends in the future.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

The following table summarizes the weighted-average assumptions relating to options granted pursuant to our equity incentive plans for the years ended December 31, 2016, 2015 and 2014:

	Year Ended December 31,		
	2016	2015	2014
Risk-free interest rate	1.8 %	1.8 %	2.2 %
Expected term (in years)	6.2	6.5	6.5
Dividend yield	0.0 %	0.0 %	0.0 %
Expected volatility	61.1 %	65.0 %	74.4 %

The exercise price of stock options is determined to be the market price of our common stock on the date immediately preceding the date of grant. These stock options become exercisable at varying dates and generally expire ten years from the date of grant. At December 31, 2016, options to purchase 6,548,696 shares of common stock were available for grant and 26,805,929 reserved shares of common stock were available for future issuance under our stock option plans.

Stock-Based Compensation Award Activity

Option activity under our equity incentive plans was as follows:

	Shares Available For Grant	Number of Shares Underlying Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2016	5,245,977	19,106,472	$ 7.08		
Authorized for grant	2,790,000	—			
Granted	(5,251,185)	5,251,185	$ 2.98		
Exercised	—	(336,520)	$ 2.30		
Cancelled	3,763,904	(3,763,904)	$ 6.32		
Outstanding at December 31, 2016	6,548,696	20,257,233	$ 6.24	5.04	$ 727,727
Vested and expected to vest at December 31, 2016		20,032,758	$ 6.27		
Exercisable at December 31, 2016		16,588,341	$ 6.93	4.11	$ 696,655

We granted options to purchase 5,251,185 shares of common stock during 2016. Of the 5,251,185 common stock options granted, 700,000 shares related to outstanding performance-based stock option awards with a grant date fair value of $1.1 million will vest upon the achievement of a corporate performance-based milestone, 100,000 shares related to performance-based stock option awards with a grant date fair value of $232,000 will vest upon achievement of other corporate performance-based milestones and 100,000 shares related to performance-based stock option awards with a grant date fair value of $240,000 will vest upon achievement of certain corporate sales target. For the 700,000 outstanding performance-based option awards, we considered the achievement of the corresponding corporate-based milestone as probable as of December 31, 2016. Accordingly, we recognized the $1.1 million as stock-based compensation expense during 2016. We did not consider the other corporate-based milestones nor the corporate sales target as probable of achievement as of December 31, 2016. Accordingly, for these performance-based option awards, no stock-based compensation expense was recognized during 2016.

We granted option to purchase 3,875,170 shares of common stock during 2015. Of the 3,875,170 common stock options granted, 1,175,000 shares were related to performance-based stock option awards which vested upon the achievement of a corporate performance-based milestone in the first quarter of 2016.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

In addition, as of December 31, 2016, we have 200,000 shares of outstanding performance-based stock option awards granted in 2014 with a grant date fair value of $520,000. These performance-based stock option awards will vest upon the achievement of a corporate performance-based milestone. We considered the achievement of the corporate-based milestone as probable as of December 31, 2016. Accordingly, we recognized the $520,000 as stock-based compensation expense during the year ended December 31, 2016.

Weighted-average grant date fair value of options granted during 2016, 2015 and 2014 was $1.72, $1.40 and $2.32, respectively.

The aggregate intrinsic value of the stock options in the table above is calculated as the difference between the exercise price of the underlying awards and the quoted price of our common stock for the options that were in-the-money at December 31, 2016. At December 31, 2016 and 2015, we had 3,668,891 and 4,017,340, respectively, of nonvested stock options, with approximately $31,000 and $2.2 million intrinsic value at December 31, 2016 and 2015, respectively. During the years ended December 31, 2016 and 2015, aggregate intrinsic value of options exercised under our stock option plans was approximately $253,000 and $252,000, respectively, determined as of the date of the stock option exercise.

As of December 31, 2016, there was approximately $5.0 million of total unrecognized compensation cost, net of estimated forfeitures, related to nonvested stock-based compensation arrangements granted under our stock option plans and approximately $639,000 of total unamortized compensation cost related to our Purchase Plan. The unamortized compensation cost related to our stock option plans and our Purchase Plan is expected to be recognized over a weighted- average period of approximately 2.7 years and 0.9 years, respectively. For the years ended December 31, 2016 and 2015, there were 4,215,058 and 2,326,021 shares vested, respectively, with weighted-average exercise price of $2.70 and $3.13, respectively.

Details of our stock options by exercise price are as follows as of December 31, 2016:

	Options Outstanding			Options Exercisable	
Exercise Price	**Number of Outstanding Options**	**Weighted-Average Remaining Contractual Life (in years)**	**Weighted-Average Exercise Price**	**Number of Options**	**Weighted-Average Exercise Price**
$1.68 - $2.54	3,638,849	6.65	$ 2.20	3,036,017	$ 2.15
$2.72 - $3.20	3,387,562	7.41	2.86	1,822,751	2.95
$3.26 - $3.92	3,505,077	7.11	3.65	2,010,617	3.57
$3.96 - $6.55	3,551,425	3.67	6.33	3,544,637	6.33
$6.73 - $9.62	4,270,760	3.17	8.06	4,270,760	8.06
$9.74 - $26.45	1,903,560	0.70	20.49	1,903,560	20.49
$1.68 - $26.45	20,257,233	5.04	6.24	16,588,342	6.93

Employee Stock Purchase Plan

Our Employee Stock Purchase Plan (Purchase Plan) permits eligible employees to purchase common stock at a discount through payroll deductions during defined offering periods. The price at which the stock is purchased is equal to the lesser of 85% of the fair market value of the common stock on the first day of the offering or 85% of the fair market value of our common stock on the purchase date. The initial offering period commenced on the effective date of our initial public offering. We issued 482,746, 576,537 and 505,877 shares of common stock during 2016, 2015 and 2014, respectively, pursuant to the Purchase Plan at an average price of $1.89, $2.03 and $2.24, respectively. For 2016, 2015 and 2014, the weighted average fair value of awards granted under our Purchase Plan was $0.98, $1.05 and $1.42, respectively. As of December 31, 2016, we had 2,518,870 reserved shares of common stock available for future issuance under the Purchase Plan.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

The fair value of awards granted under our Purchase Plan is estimated on the date of grant using the Black-Scholes option pricing model, which uses weighted- average assumptions. Our Purchase Plan provides for a twenty-four month offering period comprised of four six-month purchase periods with a look-back option. A look-back option is a provision in our Purchase Plan under which eligible employees can purchase shares of our common stock at a price per share equal to the lesser of 85% of the fair market value on the first day of the offering period or 85% of the fair market value on the purchase date. Our Purchase Plan also includes a feature that provides for a new offering period to begin when the fair market value of our common stock on any purchase date during an offering period falls below the fair market value of our common stock on the first day of such offering period. This feature is called a "reset." Participants are automatically enrolled in the new offering period. We had a "reset" on January 2, 2014 because the fair market value of our stock on December 31, 2013 was lower than the fair market value of our stock on July 1, 2013, the first day of the offering period. We applied modification accounting in accordance with ASC Topic No. 718, *Stock Compensation*, to determine the incremental fair value associated with this Purchase Plan "reset" and recognized the related stock-based compensation expense according to FASB ASC Subtopic No. 718-50, *Employee Share Purchase Plan*. The total incremental fair value for this Purchase Plan "reset" was approximately $577,000 which was recognized as expense during the period from January 2, 2014 to December 31, 2015. On January 2, 2015, we had another "reset" because the fair market value of our stock on December 31, 2014 was lower than the fair market value of our stock on July 1, 2014, the first day of another offering period. We applied modification accounting in accordance with the relevant guidance and determined that the incremental fair value associated with this Purchase Plan "reset" was approximately $792,000 which was recognized as expense during the period from January 2, 2015 to December 31, 2016. We had another "reset" on July 1, 2016 because the fair market value of our stock on June 30, 2016 was lower than the fair market value of our stock on January 5, 2015, the first day of the offering period. We applied modification accounting in accordance with the relevant guidance and determined that the incremental fair value associated with this Purchase Plan "reset" was approximately $1.0 million which will be recognized as expense during the period from July 1, 2016 to June 30, 2018.

The following table summarizes the weighted-average assumptions related to our Purchase Plan for the years ended December 31, 2016, 2015 and 2014. Expected volatilities for our Purchase Plan are based on the two-year historical volatility of our stock. Expected term represents the weighted- average of the purchase periods within the offering period. The risk-free interest rate for periods within the expected term is based on U.S. Treasury constant maturity rates.

	Year Ended December 31,		
	2016	2015	2014
Risk-free interest rate	0.5 %	0.6 %	0.3 %
Expected term (in years)	1.5	1.5	1.7
Dividend yield	0.0 %	0.0 %	0.0 %
Expected volatility	62.9 %	61.2 %	66.0 %

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

5. CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS

Cash, cash equivalents and short-term investments consist of the following (in thousands):

	December 31, 2016	December 31, 2015
Cash	$ 240	$ 2,118
Money market funds	9,496	26,291
U. S. treasury bills	4,300	9,048
Government-sponsored enterprise securities	16,459	48,613
Corporate bonds and commercial paper	44,271	40,206
	$ 74,766	$ 126,276
Reported as:		
Cash and cash equivalents	$ 17,632	$ 43,456
Short-term investments	57,134	82,820
	$ 74,766	$ 126,276

Cash equivalents and short-term investments included the following securities with gross unrealized gains and losses (in thousands):

December 31, 2016	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U. S. treasury bills	$ 4,300	$ —	$ —	$ 4,300
Government-sponsored enterprise securities	16,457	3	(1)	16,459
Corporate bonds and commercial paper	44,291	2	(22)	44,271
Total	$ 65,048	$ 5	$ (23)	$ 65,030

December 31, 2015	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U. S. treasury bills	$ 9,061	$ —	$ (13)	$ 9,048
Government-sponsored enterprise securities	48,643	1	(31)	48,613
Corporate bonds and commercial paper	40,207	11	(12)	40,206
Total	$ 97,911	$ 12	$ (56)	$ 97,867

As of December 31, 2016, our cash equivalents and short-term investments, which have contractual maturities within one year, had a weighted-average time to maturity of approximately 91 days. We view our short-term investments portfolio as available for use in current operations. We have the ability to hold all investments as of December 31, 2016 through their respective maturity dates. At December 31, 2016, we had no investments that had been in a continuous unrealized loss position for more than 12 months. As of December 31, 2016, a total of 27 individual securities had been in an unrealized loss position for 12 months or less and the losses were deemed to be temporary. The gross unrealized losses above were caused by interest rate increases. No significant facts or circumstances have arisen to indicate that there has been any deterioration in the creditworthiness of the issuers of the securities held by us. Based on our review of these securities, including the assessment of the duration and severity of the unrealized losses and our ability and intent to hold the investments until maturity, there were no other-than-temporary impairments for these securities at December 31, 2016.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

The following table shows the fair value and gross unrealized losses of our investments in individual securities that are in an unrealized loss position, aggregated by investment category (in thousands):

December 31, 2016	Fair Value	Unrealized Losses
Government-sponsored enterprise securities	$ 2,727	$ (1)
Corporate bonds and commercial paper	24,384	(22)
Total	$ 27,111	$ (23)

6. FAIR VALUE

Under FASB ASC 820, *Fair Value Measurements and Disclosures*, fair value is defined as the price at which an asset could be exchanged or a liability transferred in a transaction between knowledgeable, willing parties in the principal or most advantageous market for the asset or liability. Where available, fair value is based on observable market prices or parameters or derived from such prices or parameters. Where observable prices or parameters are not available, valuation models are applied.

Assets and liabilities recorded at fair value in our financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels directly related to the amount of subjectivity associated with the inputs to fair valuation of these assets and liabilities, are as follows:

Level 1—Inputs are unadjusted, quoted prices in active markets for identical assets at the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis.

The fair valued assets we hold that are generally included under this Level 1 are money market securities where fair value is based on publicly quoted prices.

Level 2—Are inputs, other than quoted prices included in Level 1, that are either directly or indirectly observable for the asset or liability through correlation with market data at the reporting date and for the duration of the instrument's anticipated life.

The fair valued assets we hold that are generally assessed under Level 2 included government-sponsored enterprise securities, U. S. treasury bills and corporate bonds and commercial paper. We utilize third party pricing services in developing fair value measurements where fair value is based on valuation methodologies such as models using observable market inputs, including benchmark yields, reported trades, broker/dealer quotes, bids, offers and other reference data. We use quotes from external pricing service providers and other on-line quotation systems to verify the fair value of investments provided by our third party pricing service providers. We review independent auditor's reports from our third party pricing service providers particularly regarding the controls over pricing and valuation of financial instruments and ensure that our internal controls address certain control deficiencies, if any, and complementary user entity controls are in place.

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 and which reflect management's best estimate of what market participants would use in pricing the asset or liability at the reporting date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

We do not have fair valued assets classified under Level 3.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

Fair Value on a Recurring Basis

Financial assets measured at fair value on a recurring basis are categorized in the tables below based upon the lowest level of significant input to the valuations (in thousands):

	Assets at Fair Value as of December 31, 2016			
	Level 1	Level 2	Level 3	Total
Money market funds	$ 9,496	$ —	$ —	$ 9,496
U. S. treasury bills	—	4,300	—	4,300
Government-sponsored enterprise securities	—	16,459	—	16,459
Corporate bonds and commercial paper	—	44,271	—	44,271
Total	$ 9,496	$ 65,030	$ —	$ 74,526

	Assets at Fair Value as of December 31, 2015			
	Level 1	Level 2	Level 3	Total
Money market funds	$ 26,291	$ —	$ —	$ 26,291
U. S. treasury bills	—	9,048	—	9,048
Government-sponsored enterprise securities	—	48,613	—	48,613
Corporate bonds and commercial paper	—	40,206	—	40,206
Total	$ 26,291	$ 97,867	$ —	$ 124,158

7. PROPERTY AND EQUIPMENT

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

	December 31,	
	2016	2015
Laboratory equipment	$ 17,986	$ 17,892
Computer and software	1,280	1,189
Furniture and equipment	682	682
Total property and equipment	$ 19,948	$ 19,763
Less accumulated depreciation and amortization	(18,792)	(18,150)
Property and equipment, net	$ 1,156	$ 1,613

During 2016 and 2015, we disposed of approximately $618,000 and $6.5 million, respectively, of fully depreciated assets.

Total depreciation and amortization expense was $941,000, $1.4 million and $2.4 million for the years ended December 31, 2016, 2015 and 2014, respectively. During the year ended December 31, 2016, we recognized an impairment loss on certain property and equipment of $319,000 (see Note 11) and recorded this as part of Restructuring Charges in the Statements of Operations.

8. LONG-TERM OBLIGATIONS

We currently lease our research and office space under a noncancelable lease agreement with our landlord, HCP BTC, LLC (formerly known as Slough BTC, LLC) which expires in 2018. The lease term provides for renewal option for up to two additional periods of five years each, and rental payments on a graduated scale. We determined our existing lease agreement to be an operating lease and recognize rent expense on a straight-line basis over the lease period.

In December 2014, we entered into a sublease agreement with an unrelated third party to occupy a portion of our research and office space. We expect to receive approximately $3.1 million in future sublease income (excluding our subtenant's share of facilities operating expenses) over the remaining term of the sublease. In connection with this sublease, we recognized a loss on sublease of $9.3 million during the fourth quarter of 2014. We record rent expense on a straight-line basis for our lease, net of sublease income, wherein such arrangements contain scheduled rent increases over the term of the lease and sublease, respectively. For our sublease arrangement which we classified as an operating lease, our loss on the sublease was comprised of the present value of our future payments to our landlord less the present value of our future rent payments expected from our subtenant over the term of the sublease. Further, in conjunction with our facilities lease, we have previously issued to our landlord warrants to purchase our common stock. We have previously capitalized the fair value of these warrants at issuance as part of our other long-term assets and they are being amortized over the term of our lease. As a result of the sublease agreement that we entered into in December 2014, we included approximately $265,000 representing the unamortized portion of the warrant fair value attributable to the sublet space in the determination of our loss on sublease (see Note 9). The liability arising from this sublease agreement was determined using a credit-adjusted risk-free rate to discount the estimated future net cash flows.

The changes in the liability related to the sublease agreement during the years ended December 31, 2016 and 2015 were as follows (in thousands):

Balance at January 1, 2015	$ 9,269
Accretion of deferred liability	559
Amortization of deferred liability	(3,363)
Balance at December 31, 2015	6,465
Accretion of deferred liability	357
Amortization of deferred liability	(3,362)
Balance at December 31, 2016	$ 3,460

At December 31, 2016, future minimum lease payments and obligations under our noncancelable operating lease, net of sublease receipts, were as follows (in thousands):

For years ending December 31,	Operating Lease	Sublease Receipts	Net
2017	$ 16,153	$ (2,854)	$ 13,299
2018	1,351	(196)	1,155
Total minimum payments required	$ 17,504	$ (3,050)	$ 14,454

Rent expense under our operating lease amounted to approximately $8.3 million, $8.9 million and $15.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. The rent expense during the years ended December 31, 2016 and 2015 were net of sublease income, subtenant's share of certain facilities operating expense and amortization of deferred liability in the aggregate total of $6.5 million and $6.3 million, respectively.

9. STOCKHOLDERS' EQUITY

Preferred Stock

We are authorized to issue 10,000,000 shares of preferred stock. As of December 31, 2016 and 2015, there were no issued and outstanding shares of preferred stock. Our board of directors is authorized to fix or alter the designation, powers, preferences and rights of the shares of each series of preferred shares, and the qualifications, limitations or restrictions of any wholly unissued shares, to establish from time to time the number of shares constituting any such series, and to increase or decrease the number of shares, if any.

Warrants

In conjunction with the facilities lease entered into in May 2001, we issued a warrant to the lessor to purchase 16,666 shares of our common stock at an exercise price of $80.21 per share, a 15% premium to market at the time of issuance. This warrant expired unexercised in May 2006. The fair market value of this warrant, as determined using the Black-Scholes valuation model, was approximately $683,000. This amount has been capitalized in other long-term assets and is being amortized into expense over the life of the lease. As of December 31, 2016, approximately $30,000 remained to be amortized over the remaining term of the lease.

In conjunction with the facilities lease amendment in October 2002, we issued a warrant to the lessor to purchase 55,555 shares of our common stock at an exercise price of $17.73 per share. The warrant expired unexercised in October 2007. The fair value of this warrant, as determined using the Black-Scholes valuation model, was approximately $565,000. This amount has been capitalized in other long-term assets and is being amortized into expense over the life of the lease. As of December 31, 2016, approximately $25,000 remained to be amortized over the term of the lease.

In conjunction with the facilities lease amendment in July 2006, we issued a warrant to the lessor to purchase 100,000 shares of our common stock at an exercise price of $10.57 per share. The fair value of this warrant, as determined using the Black-Scholes valuation model, was approximately $801,000. This amount has been included in other long-term assets and is being amortized into expense over the term of the lease. As of December 31, 2016, approximately $46,000 remained to be amortized over the term of the lease. The lease agreement was further amended in March 2009. The lease amendment provided for the cancellation of the abovementioned warrant to purchase 100,000 shares of common stock and the issuance of a new warrant granting our landlord the right to purchase 200,000 shares of common stock. The exercise price per share of the new warrant is $6.61. The warrant expired unexercised in February 2016. We applied modification accounting in 2009 and determined the fair value of this warrant using the Black-Scholes valuation model. The incremental fair value of the new warrant as a result of the modification is $616,000. This amount has been included in other long-term assets and is being amortized into expense over the term of the lease. As of December 31, 2016, approximately $46,000 remained to be amortized over the term of the lease.

As discussed in Note 8, as a result of the sublease agreement that we entered into in December 2014, we included approximately $265,000 representing the unamortized portion of the above fair value of warrants attributable to the sublet space in the determination of our loss on sublease during the year ended December 31, 2014.

Controlled Equity Offering

In August 2015, we entered into a Controlled Equity Offering[SM] Sales Agreement with Cantor, as sales agent, pursuant to which we may sell, through Cantor, up to an aggregate of $30.0 million in shares of our common stock. All sales of our common stock will be made pursuant to a shelf registration statement that was declared effective by the Securities and Exchange Commission (SEC) on July 13, 2015. Cantor acted as our sole sales agent for sales made under the Sales Agreement for a low single-digit commission on gross proceeds. The common stock was sold at prevailing market prices at the time of the sale. As of December 31, 2016, 9,617,875 shares of our common stock had been issued under the Sales Agreement with aggregate gross proceeds of $30.0 million. As of December 31, 2016, there are no amounts remaining for future sales under the Sales Agreement.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

10. INCOME TAXES

For the years ended December 31, 2016, 2015 and 2014, our loss before income taxes was from domestic operations. For the years ended December 31, 2016, 2015 and 2014, we did not record a provision for income taxes due to our net loss.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred tax assets are as follows (in thousands):

	December 31, 2016	December 31, 2015
Deferred tax assets		
Net operating loss carryforwards	$ 297,445	$ 276,740
Orphan drug and research and development credits	44,348	36,387
Deferred compensation	21,618	22,647
Capitalized research and development expenses	1,877	1,761
Other, net	3,069	4,966
Total deferred tax assets	368,357	342,501
Valuation allowance	(368,357)	(342,501)
Net deferred tax assets	$ —	$ —

The reconciliation of the statutory federal income tax rate to the effective tax rate was as follows:

	Year Ended December 31, 2016	2015	2014
Federal statutory tax rate	(34.0)%	(34.0)%	(34.0)%
Valuation allowance	35.0 %	31.3 %	32.3 %
Other, net	(1.0)%	2.7 %	1.7 %
Effective tax rate	0.0 %	0.0 %	0.0 %

In general, under Section 382 of the Internal Revenue Code (Section 382), a corporation that undergoes an ownership change is subject to limitations on its ability to utilize its pre-change net operating loss carryovers and tax credits to offset future taxable income. Our existing net operating loss carryforwards and tax credits are subject to limitations arising from ownership changes which occurred in previous periods. We finalized our analysis of potential ownership changes and concluded our Section 382 owner shift analysis during the year ended December 31, 2012. We have updated our net operating loss carryforwards to reflect the results of the Section 382 owner shift analysis as of December 31, 2016. We did not experience any significant changes in ownership in 2016 and 2015. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 and result in additional limitations.

As of December 31, 2016, we had net operating loss carryforwards for federal income tax purposes of approximately $826.7 million, which expire beginning in the year 2019 and state net operating loss carryforwards of approximately $303.7 million, which expire beginning in the year 2017. We had previously elected the three-factor apportionment formula pursuant to the Multistate Tax Compact, or MTC in determining the state net operating loss carryforwards for 2013 and 2014. In October 2016, the U.S. Supreme Court denied a petition to review the California Supreme Court’s decision which disallowed taxpayers from electing using the three-factor apportionment formula. Accordingly, we reduced our deferred tax assets and offsetting valuation allowance related to the California NOL calculated in 2013 and 2014 to reflect the single-sales formula.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

We have general business credits of approximately $33.0 million, which will expire beginning in 2023, if not utilized, and is comprised of research and development credits and orphan drug credits. We also have state research and development tax credits of approximately$25.7 million, which have no expiration date.

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by approximately $25.9 million and decreased by approximately $14.2 million for the years ended December 31, 2016 and 2015, respectively.

Included in the valuation allowance balance at December 31, 2016 and 2015 is approximately $2.5 million of tax deductions related to the exercise of stock options prior to the adoption of ASC 718 which have not reflected as an expense for financial reporting purposes. Accordingly, any future reduction in the valuation allowance relating to this amount will be credited directly to equity and not reflected as an income tax benefit in the statement of operations. As a result of certain realization requirements, the table of deferred tax assets and liabilities shown above does not include loss carryforward tax assets of approximately $1.7 million at December 31, 2016 and 2015 that arose directly from (or the use of which was postponed by) tax deductions related to stock-based compensation expense in excess of compensation expense recognized for financial reporting. Equity will be increased by approximately $1.7 million if and when such deferred tax assets are ultimately realized.

The following table summarizes the activity related to our gross unrecognized tax benefits (in thousands):

	Year Ended December 31,	
	2016	2015
Balance at the beginning of the year	$ 17,278	$ 5,374
Increase (decrease) related to prior year tax positions	(11,332)	11,332
Increase related to current year tax positions	957	572
Balance at the end of the year	$ 6,903	$ 17,278

Included in the balance of unrecognized tax benefits at December 31, 2016 and 2015, respectively, are $5.4 million and $12.2 million of tax benefits that, if recognized, would result in adjustments to other tax accounts, primarily deferred taxes. No income tax benefit would be realized due to the Company's valuation allowance position. We do not anticipate a significant change to the unrecognized tax benefits over the next twelve months.

We are subject to taxation in the United States and in California. Because of net operating loss and research credit carryovers, substantially all of our tax years remain open to examination.

Our policy is that we recognize interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense. We currently have no tax positions that would be subject to interest or penalties.

11. RESTRUCTURING CHARGES

In September 2016, we announced that we had reduced our workforce by 46 positions, mostly in the research area. We also announced that effective September 15, 2016, Donald G. Payan, M.D, has retired from the board of directors and from his position as Executive Vice President and President of Discovery and Research. We recorded restructuring charges during the three months ended September 30, 2016 of approximately $5.8 million within Restructuring Charges in the accompanying Statement of Operations, which included $5.0 million of severance costs paid in cash, $319,000 impairment of certain property and equipment, and $499,000 of non-cash stock-based compensation expense as a result of the modification of our former executive's stock options (see Note 4). At December 31, 2016, the remaining accrued restructuring cost of $712,000 related to COBRA benefits and outplacement costs and is classified under Accrued Compensation in the Balance Sheet.

Rigel Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS (Continued)

12. SELECTED QUARTERLY FINANCIAL DATA

	Year Ended December 31, 2016				Year Ended December 31, 2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	(unaudited, in thousands, except per share amounts)							
Revenue	$ 5,029	$ 8,594	$ 3,760	$ 3,000	$ 2,178	$ 5,184	$ 12,996	$ 8,537
Net loss	$ (17,464)	$ (13,533)	$ (22,629)	$ (15,590)	$ (18,193)	$ (13,912)	$ (6,672)	$ (12,687)
Net loss per share, basic and diluted	$ (0.19)	$ (0.15)	$ (0.24)	$ (0.16)	$ (0.21)	$ (0.16)	$ (0.08)	$ (0.14)
Weighted average shares used in computing net loss per share, basic and diluted	90,555	92,495	95,454	98,981	88,043	88,137	88,506	89,038

13. SUBSEQUENT EVENT

In February 2017, we completed an underwritten public offering in which we sold 23,000,000 shares of our common stock pursuant to an effective registration statement at a price to the public of $2.00 per share. We received net proceeds of approximately $43.0 million after deducting underwriting discounts and commissions and estimated offering expenses.

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

None.

Item 9A. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Exchange Act. Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Annual Report.

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 Exchange Act Rules 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on our evaluation under the framework in *Internal Control—Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2016.

The effectiveness of our internal control over financial reporting as of December 31, 2016 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in its attestation report which is set forth below in this Annual Report on Form 10-K.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Rigel Pharmaceuticals, Inc.

We have audited Rigel Pharmaceuticals, 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) (the COSO criteria). Rigel Pharmaceuticals, 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, Rigel Pharmaceuticals, 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 Rigel Pharmaceuticals, Inc. as of December 31, 2016 and 2015, and the related statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2016 of Rigel Pharmaceuticals, Inc. and our report dated March 7, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Redwood City, California
March 7, 2017

Changes in Internal Controls over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the fourth quarter of 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Item 9B. Other Informatio n

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information regarding our directors, executive officers and corporate governance is incorporated by reference to the information set forth under the captions “Election of Directors” and “Management—Executive Officers” in our Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2016. Such information is incorporated herein by reference.

In 2003, we adopted a code of ethics, the Rigel Pharmaceuticals, Inc. Code of Conduct, which applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Our Code of Conduct is on our website at http://media.corporate-ir.net/media_files/IROL/12/120936/corpgov/codeofconduct.pdf. If we make any amendments to the code or grant any waiver from a provision of the code applicable to any executive officer or director, we intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K by disclosing the nature of the amendment or waiver on our website at the address and the location specified above.

Information regarding compliance with Section 16(a) of the Exchange Act is incorporated by reference to the information set forth under the caption “Section 16(a) Beneficial Ownership Reporting Compliance” in our Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2016. Such information is incorporated herein by reference.

Item 11. Executive Compensation

Information regarding executive and director compensation is incorporated by reference to the information set forth under the captions “Compensation Discussion and Analysis,” “Executive Compensation” and “Director Compensation” in our Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2016. Such information is incorporated herein by reference.

Information regarding Compensation Committee interlocks and insider participation is incorporated by reference to the information set forth under the caption “Compensation Committee Interlocks and Insider Participation” in our Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2016. Such information is incorporated herein by reference.

Information regarding our Compensation Committee’s review and discussion of our Compensation Discussion and Analysis is incorporated by reference to the information set forth under the caption “Compensation Committee Report” in our Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2016. Such information is incorporated herein by reference.

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

Information regarding security ownership of certain beneficial owners and management and securities authorized for issuance under our equity compensation plans is incorporated by reference to the information set forth under the caption “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters” and “Equity Compensation Plan Information” in our Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2016. Such information is incorporated herein by reference.

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

Information regarding certain relationships and related transactions and director independence is incorporated by reference to the information set forth under the captions “Transactions with Related Persons” and “Information Regarding the Board of Directors and Corporate Governance” in our Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2016. Such information is incorporated herein by reference.

Item 14. Principal Accounting Fees and Service s

Information regarding principal accounting fees and services is incorporated by reference to the information set forth under the caption "Ratification of Selection of Independent Registered Public Accounting Firm" in our Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2016. Such information is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) The following documents are being filed as part of this Annual Report on Form 10-K:

1. Financial Statements—Index to Financial Statements in Item 8 of this Annual Report on Form 10-K including selected quarterly financial data for the last two years in Note 12.

2. Financial Statement Schedules—None—As all required disclosures have been made in the footnotes to the financial statements.

3. See Exhibit Index at the end of this Annual Report, which is incorporated herein by reference. The Exhibits listed in the accompanying Exhibit Index are filed as part of this report.

SIGNATURE S

Pursuant to the requirements of the Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on March 7, 2017.

Rigel Pharmaceuticals, Inc.

By: /s/ Raul R. Rodriguez
Raul R. Rodriguez
Chief Executive Officer

By: /s/ Ryan D. Maynard
Ryan D. Maynard
Executive Vice President and Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Raul R. Rodriguez and Ryan D. Maynard, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place, and stead, in any and all capacities, to sign any and all amendments to this Annual 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 requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming that all said attorneys-in-fact and agents, or any of them or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual 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/ Raul R. Rodriguez Raul R. Rodriguez	Chief Executive Officer and Director (Principal Executive Officer)	March 7, 2017
/s/ Ryan D. Maynard Ryan D. Maynard	Executive Vice President and Chief Financial Officer (Principal Finance and Accounting Officer)	March 7, 2017
/s/ Gary A. Lyons Gary A. Lyons	Chairman of the Board	March 7, 2017
/s/ Bradford S. Goodwin Bradford S. Goodwin	Director	March 7, 2017
/s/ Keith A. Katkin Keith A. Katkin	Director	March 7, 2017
/s/ Walter H. Moos Walter H. Moos	Director	March 7, 2017
/s/ Peter S. Ringrose Peter S. Ringrose	Director	March 7, 2017
/s/ Stephen A. Sherwin Stephen A. Sherwin	Director	March 7, 2017

EXHIBIT INDE X

3.1	Amended and Restated Certificate of Incorporation (filed as an exhibit to Rigel's Current Report on Form 8- K (No. 000-29889) dated May 29, 2012, and incorporated herein by reference).
3.2	Amended and Restated Bylaws (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000- 29889), dated February 2, 2007, and incorporated herein by reference).
4.1	Form of warrant to purchase shares of common stock (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
4.2	Specimen Common Stock Certificate (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) dated June 24, 2003, and incorporated herein by reference).
4.3	Warrant issued to HCP BTC, LLC for the purchase of shares of common stock (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009 (No. 000-29889) and incorporated herein by reference).
10.1+	Form of Stock Option Agreement pursuant to 2000 Equity Incentive Plan (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
10.2	Collaboration Agreement between Rigel and Janssen Pharmaceutical N.V., dated December 4, 1998 (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
10.3	Collaborative Research and License Agreement between Rigel and Pfizer Inc., dated January 31, 1999 (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
10.4	Collaboration Agreement between Rigel and Novartis Pharma AG, dated May 26, 1999 (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
10.5	Build-to-Suit Lease between Rigel and Slough BTC, LLC, dated May 16, 2001 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 (No. 000-29889) and incorporated herein by reference).
10.6*	Amendment to Build-to-Suit Lease between Rigel and Slough BTC, LLC, dated October 18, 2002 (filed as an exhibit to Rigel's Annual Report on Form 10-K, as amended, for the fiscal year ended December 31, 2002 (No. 000-29889) and incorporated herein by reference).
10.7	Amendment No. Two to Build-to-Suit Lease between Rigel and Slough BTC, LLC, dated January 31, 2005 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009 (No. 000-29889) and incorporated herein by reference).
10.8	Amendment No. Three to Build-to-Suit Lease between Rigel and Slough BTC, LLC, dated January 31, 2005 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009 (No. 000-29889) and incorporated herein by reference).
10.9	Amendment No. Four to Build-to-Suit Lease between Rigel and HCP BTC, LLC, dated February 1, 2009 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009 (No. 000-29889) and incorporated herein by reference).

10.10	First Amendment to the Collaboration Agreement between Rigel and Novartis Pharma AG, dated May 18, 2001 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 (No. 000- 29889) and incorporated herein by reference).
10.11*	Second Amendment to the Collaboration Agreement between Rigel and Novartis Pharma AG, dated July 6, 2001 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001 (No. 000-29889) and incorporated herein by reference).
10.12	First Amendment to the Collaboration Agreement by and between Rigel and Janssen Pharmaceutical N.V., dated June 30, 2000 (filed as an exhibit to Rigel's Annual Report on Form 10-K for the fiscal year ended December 31, 2001 (No. 000-29889) and incorporated herein by reference).
10.13	Second Amendment to the Collaboration Agreement by and between Rigel and Janssen Pharmaceutical N.V., dated December 4, 2001 (filed as an exhibit to Rigel's Annual Report on Form 10-K for the fiscal year ended December 31, 2001 (No. 000-29889) and incorporated herein by reference).
10.14*	Collaboration Agreement between Rigel and Daiichi Pharmaceutical Co., Ltd., dated August 1, 2002 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002 (No. 000-29889) and incorporated herein by reference).
10.15+	Employment Agreement between Rigel and Elliott B. Grossbard, dated as of March 18, 2002 (filed as an exhibit to Rigel's Annual Report on Form 10-K, as amended, for the fiscal year ended December 31, 2002 (No. 000- 29889) and incorporated herein by reference).
10.16+	Separation Agreement by and between Rigel and Elliot Grossbard, M.D., dated June 30, 2016(filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 (No. 000-29889) filed on August 2, 2016 and incorporated herein by reference).
10.17+	Clinical Research Consulting Agreement by and between Rigel and Elliot Grossbard, M.D., dated June 27, 2016(filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 (No. 000-29889) filed on August 2, 2016 and incorporated herein by reference).
10.18+	Offer Letter from Rigel to Anne-Marie Duliege, dated February 4, 2016 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 (No. 000-29889) filed on May 3, 2016 and incorporated herein by reference).
10.19+*	Offer Letter from Rigel Pharmaceuticals, Inc. to Eldon C. Mayer III, dated September 12, 2016 (filed as an exhibit to Rigel's Quarterly Report on Form 10 Q for the quarter ended September 30, 2016 (No. 000 29889) filed on November 1, 2016 and incorporated herein by reference).
10.20+*	Offer Letter from Rigel Pharmaceuticals, Inc. to Joseph Lasaga, dated September 26, 2016 (filed as an exhibit to Rigel's Quarterly Report on Form 10 Q for the quarter ended September 30, 2016 (No. 000 29889) filed on November 1, 2016 and incorporated herein by reference).
10.21*	Collaborative Research and License Agreement by and between Rigel and Pfizer Inc., dated January 18, 2005 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2005 (No. 000-29889) and incorporated herein by reference).
10.22+	Form of Indemnity Agreement (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007 (No. 000-29889), as amended, and incorporated herein by reference).
10.23+	2000 Equity Incentive Plan, as amended (filed as an exhibit to Rigel's Registration Statement on Form S-8 (No. 333-189523) filed on June 21, 2013 and incorporated herein by reference).

10.24+	2000 Non-Employee Directors' Stock Option Plan, as amended (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 (No. 000-29889) filed on August 2, 2016 and incorporated herein by reference).
10.25+	Amended and Restated Employment Agreement between Rigel and Donald G. Payan, effective January 1, 2011 (filed as an exhibit to Rigel's Annual Report on Form 10-K for the fiscal year ended December 31, 2010 (No. 000-29889) and incorporated herein by reference).
10.26+	Separation Agreement by and between Rigel Pharmaceuticals, Inc. and Donald G. Payan, M.D., dated September 15, 2016 (filed as an exhibit to Rigel's Quarterly Report on Form 10 Q for the quarter ended September 30, 2016 (No. 000 29889) filed on November 1, 2016 and incorporated herein by reference).
10.27+	Amended and Restated Change of Control Severance Plan (filed as an exhibit to Rigel's Annual Report on Form 10-K for the fiscal year ended December 31, 2010 (No. 000-29889) and incorporated herein by reference).
10.28+	2000 Employee Stock Purchase Plan, as amended (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010 (No. 000-29889) and incorporated herein by reference).
10.29*	License and Collaboration Agreement between Rigel and AstraZeneca AB, dated February 15, 2010 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010 (No. 000-29889) and incorporated herein by reference).
10.30+	2011 Equity Incentive Plan, as amended (filed as an exhibit to Rigel's Quarterly Report on Form 10 Q for the quarter ended June 30, 2016 (No. 000 29889) filed on August 2, 2016 and incorporated herein by reference).
10.31*	Termination Agreement between Rigel and Pfizer, Inc., dated May 2, 2011 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011 (No. 000-29889) and incorporated herein by reference).
10.32+	Form of Stock Option Agreement pursuant to 2011 Equity Incentive Plan (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2011 (No. 000-29889) and incorporated herein by reference).
10.33+	2012 Cash Incentive Plan (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) filed on February 8, 2012, and incorporated herein by reference).
10.34+	2013 Cash Incentive Plan (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) filed on February 14, 2013, and incorporated herein by reference).
10.35+	2014 Cash Incentive Plan (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) filed on May 20, 2014, and incorporated herein by reference).
10.36+	2015 Cash Incentive Plan (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) filed on January 30, 2015, and incorporated herein by reference).
10.37+	2016 Cash Incentive Plan (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) filed on January 26, 2016, and incorporated herein by reference).
10.38+#	Rigel Pharmaceuticals, Inc. Inducement Plan, as amended

10.39+	Form of Stock Option Grant Notice, Option Agreement and Notice of Exercise under the Rigel Inducement Plan (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) filed on October 11, 2016, and incorporated herein by reference).
10.40	Controlled Equity Offering[SM] Sales Agreement, dated August 18, 2015, by and between Rigel Pharmaceuticals, Inc. and Cantor Fitzgerald & Co. (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) filed on August 18, 2015, and incorporated herein by reference).
23.1#	Consent of Independent Registered Public Accounting Firm.
24.1#	Power of Attorney (included on signature page).
31.1#	Certification required by Rule 13a-14(a) or Rule 15d-14(a).
31.2#	Certification required by Rule 13a-14(a) or Rule 15d-14(a).
32.1•	Certification required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. 1350).
101.INS#	XBRL Instance Document
101.SCH#	XBRL Taxonomy Extension Schema Document
101.CAL#	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB#	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE#	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF#	XBRL Taxonomy Extension Definition Linkbase Document

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+ Management contract or compensatory plan.

* Confidential treatment requested as to specific portions, which portions are omitted and filed separately with the Securities and Exchange Commission.

Filed herewith.

• The certification attached as Exhibit 32.1 accompanies the Annual Report on Form 10-K pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed "filed" by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

Rigel Pharmaceuticals, Inc.

Inducement Plan

Adopted by the Compensation Committee: October 10, 2016
Amended by the Compensation Committee: January 3, 2017

1. General.

(a) Eligible Stock Award Recipients. The only persons eligible to receive grants of Stock Awards under this Plan are individuals who satisfy the standards for inducement grants under NASDAQ Marketplace Rule 5635(c)(4) and the related guidance under NASDAQ IM 5635-1. A person who previously served as an Employee or Director will not be eligible to receive Stock Awards under the Plan, other than following a *bona fide* period of non-employment. Persons eligible to receive grants of Stock Awards under this Plan are referred to in this Plan as "***Eligible Employees***". These Stock Awards must be approved by either a majority of the Company's "***Independent Directors***" (as such term is defined in NASDAQ Listing Rule 5605(a)(2)) or the Company's compensation committee, provided such committee is comprised solely of Independent Directors (the "***Independent Compensation Committee***") in order to comply with the exemption from the stockholder approval requirement for "inducement grants" provided under Rule 5635(c)(4) of the NASDAQ Listing Rules. NASDAQ Marketplace Rule 5635(c)(4) and the related guidance under NASDAQ IM 5635-1 are referred to in this Plan as the "***Inducement Award Rules***".

(b) Available Awards. The Plan provides for the grant of Options and Restricted Stock Unit Awards . All Options will be Nonstatutory Stock Options. Awards intended to qualify as stockholder-approved performance based compensation for purposes of Section 162(m) of the Code may not be granted under this Plan.

(c) Purpose. This Plan, through the granting of Stock Awards, is intended to provide (i) an inducement material for certain individuals to enter into employment with the Company within the meaning of Rule 5635(c)(4) of the NASDAQ Listing Rules, (ii) incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate and (iii) a means by which Eligible Employees may be given an opportunity to benefit from increases in value of the Common Stock through the granting of Stock Awards.

2. Administration.

(a) Administration by Board. The Board will administer the Plan, provided, however, that Stock Awards may only be granted by either (i) a majority of the Company's Independent Directors or (ii) the Independent Compensation Committee. Subject to those constraints and the other constraints of the Inducement Award Rules, the Board may delegate some of its powers of administration of the Plan to a Committee, as provided in Section 2(c).

(b) Powers of Board. The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan and the Inducement Award Rules:

(i) To determine: (A) who will be granted Stock Awards; (B) when and how each Stock Award will be granted; (C) what type of Stock Award will be granted; (D) the provisions of each Stock Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Stock Award; (E) the number of shares of Common Stock subject to, or the cash value of, a Stock Award; and (F) the Fair Market Value applicable to a Stock Award; provided, however, that Stock Awards may only be granted by either (i) a majority of the Company's Independent Directors or (ii) the Independent Compensation Committee.

(ii) To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan and Stock Awards. The Board, in the exercise of these powers, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it will deem necessary or expedient to make the Plan or Stock Award fully effective.

(iii) To settle all controversies regarding the Plan and Stock Awards granted under it.

(iv) To accelerate, in whole or in part, the time at which a Stock Award may be exercised or vest (or at which cash or shares of Common Stock may be issued).

(v) To suspend or terminate the Plan at any time. Except as otherwise provided in the Plan or a Stock Award Agreement, suspension or termination of the Plan will not materially impair a Participant's rights under his or her then-outstanding Stock Award without his or her written consent except as provided in subsection (viii) below.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, adopting amendments relating to nonqualified deferred compensation under Section 409A of the Code and/or making the Plan or Stock Awards granted under the Plan exempt from or compliant with the requirements for nonqualified deferred compensation under Section 409A of the Code, subject to the limitations, if any, of applicable law. If required by applicable law or listing requirements, and except as provided in Section 9(a) relating to Capitalization Adjustments, the Company will seek stockholder approval of any amendment of the Plan that (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Stock Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan, (D) materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (E) materially extends the term of the Plan, or (F) materially expands the types of Stock Awards available for issuance under the Plan. Except as otherwise provided in the Plan (including subsection (viii) below) or a Stock Award Agreement, no amendment of the Plan will materially impair a Participant's rights under an outstanding Stock Award without the Participant's written consent.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of Rule 16b-3 of Exchange Act or any successor rule.

(viii) To approve forms of Stock Award Agreements for use under the Plan and to amend the terms of any one or more outstanding Stock Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Stock Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion. A Participant's rights under any Stock Award will not be impaired by any such amendment unless the Company requests the consent of the affected Participant, and the Participant consents in writing. However, a Participant's rights will not be deemed to have been impaired by any such amendment if the Board, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights. In addition, subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Stock Awards without the affected Participant's consent (A) to clarify the manner of exemption from, or to bring the Stock Award into compliance with, Section 409A of the Code, or (B) to comply with other applicable laws or listing requirements.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan and/or Stock Award Agreements.

(x) To adopt such procedures and sub-plans as are necessary or appropriate (A) to permit participation in the Plan by individuals who are foreign nationals or employed outside the United States or (B) allow Stock Awards to qualify for special tax treatment in a foreign jurisdiction; *provided* that Board approval will not be necessary for immaterial modifications to the Plan or any Stock Award Agreement that are required for compliance with the laws of the relevant foreign jurisdiction.

(c) Delegation to Committee.

(i) General. The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee). Any delegation of administrative powers will be reflected in resolutions, not inconsistent with the provisions of the Plan, adopted from time to time by the Board or Committee (as applicable). The Committee may, at any time, abolish the subcommittee and/or revest in the Committee any powers delegated to the subcommittee. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated.

(ii) Rule 16b-3 Compliance. The Committee may consist solely of two or more Non-Employee Directors, in accordance with Rule 16b-3 of the Exchange Act.

(d) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

(e) Cancellation and Re-Grant of Stock Awards. Neither the Board nor any Committee will have the authority to: (i) reduce the exercise, purchase or strike price of any outstanding Option, or (ii) cancel any outstanding Option that has an exercise price or strike price greater than the current Fair Market Value of the Common Stock in exchange for cash or other Stock Awards under the Plan, unless the stockholders of the Company have approved such an action within twelve (12) months prior to such an event.

3. Shares Subject to the Plan.

(a) Share Reserve.

(i) Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards will not exceed 904,000 shares (the "***Share Reserve***").

(ii) Shares may be issued under the terms of this Plan in connection with a merger or acquisition as permitted by NASDAQ Listing Rule 5635(c), NYSE Listed Company Manual Section 303A.08, AMEX Company Guide Section 711 or other applicable rule, and such issuance will not reduce the number of shares available for issuance under the Plan.

(b) Reversion of Shares to the Share Reserve. If a Stock Award or any portion of a Stock Award (i) expires or otherwise terminates without all of the shares covered by the Stock Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement will nevertheless reduce (or otherwise offset) the number of shares of Common Stock that are available for issuance under the Plan. If any shares of Common Stock issued under a Stock Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares that are forfeited or repurchased will not revert to and again become available for issuance under the Plan. Any shares reacquired by the Company in satisfaction of tax withholding obligations on a Stock Award or as consideration for the exercise or purchase price of a Stock Award will not again become available for issuance under the Plan.

(c) Source of Shares. The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

4. Eligibility.

(a) Eligibility for Specific Stock Awards. Stock Awards may only be granted to persons who are Eligible Employees described in Section 1(a) of the Plan, where the Stock Award is an inducement material to the individual's entering into employment with the Company or an Affiliate within the meaning of Rule 5635(c)(4) of the NASDAQ Listing Rules, *provided however*, that Stock Awards may not be granted to Eligible Employees who are providing Continuous Service only to any "parent" of the Company, as such term is defined in Rule 405 of the Securities Act, unless (i) the stock underlying such Stock Awards is treated as "service recipient stock" under Section 409A of the Code (for example, because the Stock Awards are granted pursuant to a corporate transaction such as a spin off transaction), or (ii) the Company, in consultation with its legal counsel, has determined that such Stock Awards are otherwise exempt from or comply with the distribution requirements of Section 409A of the Code.

(b) Approval Requirements. All Stock Awards must be granted either by a majority of the Company's independent directors or the Independent Compensation Committee.

5. Provisions Relating to Options.

Each Option will be in such form and will contain such terms and conditions as the Board deems appropriate. All Options will be Nonstatutory Stock Options. The provisions of separate Options need not be identical; *provided, however*, that each Option Agreement will conform to (through incorporation of provisions hereof by reference in the applicable Option Agreement or otherwise) the substance of each of the following provisions:

(a) **Term.** No Option will be exercisable after the expiration of 10 years from the date of its grant or such shorter period specified in the Option Agreement.

(b) **Exercise Price.** The exercise or strike price of each Option will be not less than 100% of the Fair Market Value of the Common Stock subject to the Option on the date the Option is granted. Notwithstanding the foregoing, an Option may be granted with an exercise price lower than 100% of the Fair Market Value of the Common Stock subject to the Option if such Option is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Section 409A of the Code.

(c) **Purchase Price for Options.** The purchase price of Common Stock acquired pursuant to the exercise of an Option may be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board will have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to use a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company will accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued. Shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations; or

(v) in any other form of legal consideration that may be acceptable to the Board and specified in the applicable Option Agreement.

(d) **Transferability of Options.** The Board may, in its sole discretion, impose such limitations on the transferability of Options as the Board will determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options will apply:

(i) **Restrictions on Transfer.** An Option will not be transferable except by will or by the laws of descent and distribution (or pursuant to subsections (ii) and (iii) below), and will be exercisable during the lifetime of the Participant only by the Participant. The Board may permit transfer of the Option in a manner that is not prohibited by applicable tax and securities laws. Except as explicitly provided in the Plan, an Option may not be transferred for consideration.

(ii) **Domestic Relations Orders.** Subject to the approval of the Board or a duly authorized Officer, an Option may be transferred pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument.

(iii) **Beneficiary Designation.** Subject to the approval of the Board or a duly authorized Officer, a Participant may, by delivering written notice to the Company, in a form approved by the Company (or the designated broker), designate a third party who, on the death of the Participant, will thereafter be entitled to exercise the Option and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, the executor or administrator of the Participant's estate will be entitled to exercise the Option and receive the Common Stock or other consideration resulting from such exercise. However, the Company may prohibit designation of a beneficiary at any time, including due to any conclusion by the Company that such designation would be inconsistent with the provisions of applicable laws.

(e) **Vesting Generally.** The total number of shares of Common Stock subject to an Option may vest and therefore become exercisable in periodic installments that may or may not be equal. The Option may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of performance goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options may vary. The provisions of this Section 5(e) are subject to any Option provisions governing the minimum number of shares of Common Stock as to which an Option may be exercised.

(f) **Termination of Continuous Service.** Except as otherwise provided in the applicable Option Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates (other than for Cause and other than upon the Participant's death or Disability), the Participant may exercise his or her Option (to the extent that the Participant was entitled to exercise such Option as of the date of termination of Continuous Service) within the period of time ending on the earlier of (i) the date which occurs 3 months following the termination of the Participant's Continuous Service , and (ii) the expiration of the term of the Option as set forth in the Option Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option within the applicable time frame, the Option will terminate.

(g) **Extension of Termination Date.** Except as otherwise provided in the applicable Stock Award Agreement, if the exercise of an Option following the termination of the Participant's Continuous Service (other than for Cause and other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option will terminate on the earlier of (i) the expiration of a total period of time (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option would not be in violation of such registration requirements, and (ii) the expiration of the term of the Option as set forth in the applicable Option Agreement. In addition, unless otherwise provided in a Participant's Option Agreement, if the sale of any Common Stock received upon exercise of an Option following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option will terminate on the earlier of (i) the expiration of a period of days or months (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option would not be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option as set forth in the applicable Option Agreement.

(h) **Disability of Participant.** Except as otherwise provided in the applicable Option Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option (to the extent that the Participant was entitled to exercise such Option as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date 12 months following such te rmination of Continuous Service and (ii) the expiration of the term of the Option as set forth in the Option Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option within the applicable time frame, the Option will terminate.

(i) **Death of Participant.** Except as otherwise provided in the applicable Option Agreement or other agreement between the Participant and the Company, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Option Agreement for exercisability after the termination of the Participant's Continuous Service for a reason other than death, then the Option may be exercised (to the extent the Participant was entitled to exercise such Option as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option by bequest or inheritance or by a person designated to exercise the Option upon the Participant's death, but only within the period ending on the earlier of (i) the date 18 months following the date of death and (ii) the expiration of the term of such Option as set forth in the Option Agreement. If, after the Participant's death, the Option is not exercised within the applicable time frame, the Option will terminate.

(j) **Termination for Cause.** Except as explicitly provided otherwise in a Participant's Stock Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a Participant's Continuous Service is terminated for Cause, the Option will terminate upon the date on which the event giving rise to the termination for Cause first occurred, and the Participant will be prohibited from exercising his or her Option from and after the date on which the event giving rise to the termination for Cause first occurred (or, if required by applicable law, the date of termination of Continuous Service). If a Participant's Continuous Service is suspended pending an investigation of the existence of Cause, all of the Participant's rights under the Option will also be suspended during the investigation period, except to the extent prohibited by applicable law.

(k) **Non-Exempt Employees**. If an Option is granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the Option will not be first exercisable for any shares of Common Stock until at least 6 months following the date of grant of the Option (although the Option may vest prior to such date). Consistent with the provisions of the Worker Economic Opportunity Act, (i) if such non-exempt Employee dies or suffers a Disability, (ii) upon a Corporate Transaction in which such Option is not assumed, continued, or substituted, or (iii) upon the non-exempt Employee's retirement (as such term may be defined in the non-exempt Employee's Option Agreement in another agreement between the non-exempt Employee and the Company, or, if no such definition, in accordance with the Company's then current employment policies and guidelines), the vested portion of any Options may be exercised earlier than 6 months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option will be exempt from his or her regular rate of pay. To the extent permitted and/or required for compliance with the Worker Economic Opportunity Act to ensure that any income derived by a non-exempt Employee in connection with the exercise, vesting or issuance of any shares under any other Option will be exempt from such Employee's regular rate of pay, the provisions of this paragraph will apply to all Options and are hereby incorporated by reference into such Option Agreements.

6. Provisions Relating to Restricted Stock Unit Awards.

Each Restricted Stock Unit Award Agreement will be in such form and will contain such terms and conditions as the Board deems appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical. Each Restricted Stock Unit Award Agreement will conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(a) **Consideration.** At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(b) **Vesting.** At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(c) **Payment**. A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(d) **Additional Restrictions.** At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(e) **Dividend Equivalents.** Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

(f) **Termination of Participant's Continuous Service.** Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

7. Covenants of the Company.

(a) Availability of Shares. The Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy then-outstanding Stock Awards.

(b) Securities Law Compliance. The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however,* that this undertaking will not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant will not be eligible for the grant of a Stock Award or the subsequent issuance of cash or Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

(c) No Obligation to Notify or Minimize Taxes. The Company will have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company will have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

8. Miscellaneous.

(a) Use of Proceeds from Sales of Common Stock. Proceeds from the sale of shares of Common Stock pursuant to Stock Awards will constitute general funds of the Company.

(b) Corporate Action Constituting Grant of Stock Awards. Corporate action constituting a grant by the Company of a Stock Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Stock Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (*e.g.*, Board consents, resolutions or minutes) documenting the corporate action constituting the grant contain terms (*e.g.*, exercise price, vesting schedule or number of shares) that are inconsistent with those in the Stock Award Agreement as a result of a clerical error in the papering of the Stock Award Agreement, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Stock Award Agreement.

(c) Stockholder Rights. No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to a Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares of Common Stock under, the Stock Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to such Stock Award has been entered into the books and records of the Company.

(d) No Employment or Other Service Rights. Nothing in the Plan, any Stock Award Agreement or any other instrument executed thereunder or in connection with any Stock Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or will affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, including, but not limited to, Cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) Change in Time Commitment. In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Stock Award to the Participant, the Board has the right in its sole discretion to (i) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Stock Award that is scheduled to vest or become payable after the date of such change in time commitment, and (ii) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Stock

Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Stock Award that is so reduced or extended.

(f) Investment Assurances. The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award, and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, will be inoperative if (i) the issuance of the shares upon the exercise of a Stock Award or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (ii) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(g) Withholding Obligations. Unless prohibited by the terms of a Stock Award Agreement, the Company may, in its sole discretion, satisfy any U.S. federal, state, local, foreign or other tax withholding obligation relating to a Stock Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Stock Award; *provided, however*, that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such other amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from a Stock Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant, including proceeds from the sale of shares of Common Stock issued pursuant to a Stock Award; or (v) by such other method as may be set forth in the Stock Award Agreement.

(h) Electronic Delivery. Any reference herein to a "written" agreement or document will include any agreement or document delivered electronically, filed publicly at www.sec.gov (or any successor website thereto), or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access).

(i) Deferrals. To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Stock Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code (to the extent applicable to a Participant). Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company. The Board is authorized to make deferrals of Stock Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(j) Compliance with Section 409A. Unless otherwise expressly provided for in a Stock Award Agreement and the Plan will be interpreted to the greatest extent possible in a manner that makes the Plan and the Stock Awards granted hereunder exempt from Section 409A of the Code, and, to the extent not so exempt, in compliance with Section 409A of the Code. If the Board determines that any Stock Award granted hereunder is not exempt from and is therefore subject to Section 409A of the Code, the Stock Award Agreement evidencing such Stock Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code, and to the extent a Stock Award Agreement is silent on terms necessary for compliance, such terms are hereby incorporated by reference into the Stock Award Agreement. Notwithstanding anything to the contrary in this Plan (and unless the Stock Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding a Stock Award that constitutes "deferred compensation" under Section 409A of the Code is a "specified employee" for purposes of Section 409A of the Code, no distribution or payment of any amount that is due because of a "separation from service" (as defined in Section 409A of the Code) will be issued or paid before the date that is six (6) months following the date of such Participant's "separation from service" or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code, and any amounts so deferred will be paid in a lump sum on the day after such six (6) month period elapses, with the balance paid thereafter on the original schedule.

(k) **Clawback/Recovery.** All Stock Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in a Stock Award Agreement as the Board determines necessary or appropriate, including, but not limited to, a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of an event constituting Cause. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company or an Affiliate.

9. Adjustments upon Changes in Common Stock; Other Corporate Events.

(a) **Capitalization Adjustments**. In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a) and (ii) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board will make such adjustments, and its determination will be final, binding and conclusive.

(b) **Dissolution or Liquidation.** In the event of a dissolution or liquidation of the Company, then all outstanding Stock Awards shall terminate immediately prior to such event.

(c) **Corporate Transaction.** In the event of (i) a sale, lease or other disposition of all or substantially all of the securities or assets of the Company, (ii) a merger or consolidation in which the Company is not the surviving corporation or (iii) a reverse merger in which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger are converted by virtue of the merger into other property, whether in the form of securities, cash or otherwise (a "***Corporate Transaction***"), then any surviving corporation or acquiring corporation may assume any Stock Awards outstanding under the Plan or may substitute similar stock awards (including an award to acquire the same consideration paid to the stockholders in such Corporate Transaction) for those outstanding under the Plan. In the event any surviving corporation or acquiring corporation does not assume such Stock Awards or substitute similar stock awards for those outstanding under the Plan, then with respect to Stock Awards held by Participants whose Continuous Service has not terminated, the vesting of such Stock Awards (and, if applicable, the time during which such Stock Awards may be exercised) shall be accelerated in full, and the Stock Awards shall terminate if not exercised (if applicable) at or prior to such event. With respect to any other Stock Awards outstanding under the Plan, such Stock Awards shall terminate if not exercised (if applicable) prior to such event.

10. Termination or Suspension of the Plan.

The Board may suspend or terminate the Plan at any time. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

11. Effective Date of Plan; Timing of First Grant or Exercise.

The Plan will come into existence on the Effective Date. No Stock Award may be granted prior to the Effective Date.

12. Choice of Law.

The laws of the State of Delaware will govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

13. **Definitions.** As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) "***Affiliate***" means, at the time of determination, any "parent" or "subsidiary" of the Company, as such terms are defined in Rule 405 of the Securities Act. The Board will have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(b) "***Board***" means the Board of Directors of the Company.

(c) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Effective Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other similar equity restructuring transaction, as that term is used in Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(d) "***Cause***" will have the meaning ascribed to such term in any written agreement between the Participant and the Company or any Affiliate defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) such Participant's conviction of any felony or any crime involving moral turpitude or dishonesty, (ii) such Participant's participation in a fraud or act of dishonesty against the Company, (iii) such Participant's conduct that, based upon a good faith and reasonable factual investigation and determination by the Board, demonstrates the Participant's gross unfitness to serve, or (iv) such Participant's intentional, material violation of any contract between the Company and the Participant or any statutory duty that the Participant has to the Company that the Participant does not correct within 30 days after written notice to the Participant thereof. The determination as to whether a Participant is being terminated for Cause will be made in good faith by the Company and will be final and binding on the Participant. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Stock Awards held by such Participant will have no effect upon any determination of the rights or obligations of the Company, any Affiliate or such Participant for any other purpose.

(e) "***Code***" means the U.S. Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(f) "***Committee***" means a committee of one (1) or more Independent Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(g) "***Common Stock***" means the common stock of the Company.

(h) "***Company***" means Rigel Pharmaceuticals, Inc., a Delaware corporation.

(i) "***Consultant***" means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a "Consultant" for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company's securities to such person.

(j) "***Continuous Service***" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, will not terminate a Participant's Continuous Service. For example, a change in status from an Employee of the Company to a Consultant of an Affiliate or to a Director will not constitute an interruption of Continuous Service. If the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board in its sole discretion, such Participant's Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous Service will be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. In addition, if required for exemption from or compliance with Section 409A of the Code, the determination of whether there has been a termination of Continuous Service will be made, and such term will be construed, in a manner that is consistent with the definition of "separation from service" as defined under Treasury Regulation Section 1.409A-1(h). A leave of absence will be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(k) "***Director***" means a member of the Board. Directors are not eligible to receive Stock Awards under the Plan with respect to their service in such capacity.

(l) "***Disability***" means the permanent and total disability of a person within the meaning of Section 22(e)(3) of the Code.

(m) "***Effective Date***" means October 10, 2016.

(n) "***Employee***" means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an "Employee" for purposes of the Plan.

(o) "***Entity***" means a corporation, partnership, limited liability company or other entity.

(p) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(q) "***Fair Market Value***" means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock will be, unless otherwise determined by the Board, the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in a source the Board deems reliable.

(ii) Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, the Fair Market Value will be determined by the Board in good faith and in a manner that complies with Sections 409A of the Code.

(r) ***"Independent Director"*** has the meaning set forth in Section 1(a) above.

(s) "***Non-Employee Director***" means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act ("***Regulation S-K***")), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a "non-employee director" for purposes of Rule 16b-3 of the Exchange Act.

(t) "***Nonstatutory Stock Option***" means any option granted pursuant to Section 4(b) of the Plan that does not qualify as an "incentive stock option" within the meaning of Section 422 of the Code.

(u) "***Officer***" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(v) "***Option***" means a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(w) "***Option Agreement***" means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement will be subject to the terms and conditions of the Plan.

(x) "***Optionholder***" means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(y) "***Participant***" means a person to whom a Stock Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(z) "***Plan***" means this Rigel Pharmaceuticals, Inc. Inducement Plan, as it may be amended.

(aa) "***Restricted Stock Unit Award***" means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

(bb) "***Restricted Stock Unit Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement will be subject to the terms and conditions of the Plan.

(cc) ***"Rule 16b-3***" means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

(dd) "***Securities Act***" means the Securities Act of 1933, as amended.

(ee) ***"Stock Award"*** means any right to receive Common Stock granted under the Plan, including an Option or a Restricted Stock Unit Award.

(ff) "***Stock Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement will be subject to the terms and conditions of the Plan.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statements (Form S-8 Nos. 333-51184, 333-106532, 333-125895 and 333-148132) pertaining to the 2000 Equity Incentive Plan, the 2000 Employee Stock Purchase Plan and the 2000 Non-Employee Directors' Stock Option Plan of Rigel Pharmaceuticals, Inc.,

(2) Registration Statements (Form S-8 Nos. 333-155031 and 333-168495) pertaining to the 2000 Equity Incentive Plan and the 2000 Non-Employee Directors' Stock Option Plan of Rigel Pharmaceuticals, Inc.,

(3) Registration Statement (Form S-8 No. 333-134622) pertaining to the 2000 Equity Incentive Plan and 2000 Employee Stock Purchase Plan of Rigel Pharmaceuticals, Inc.,

(4) Registration Statement (Form S-8 No. 333-72492) pertaining to the 2001 Non-Officer Equity Incentive Plan of Rigel Pharmaceuticals, Inc.,

(5) Registration Statements (Form S-8 Nos. 333-107062, 333-139516 and 333-196535) pertaining to the 2000 Employee Stock Purchase Plan of Rigel Pharmaceuticals, Inc.,

(6) Registration Statement (Form S-8 No. 333-111782) pertaining to the 2000 Equity Incentive Plan of Rigel Pharmaceuticals, Inc.,

(7) Registration Statements (Form S-8 Nos. 333-175977 and 333-189523) pertaining to the 2011 Equity Incentive Plan, the 2000 Equity Incentive Plan and the 2000 Non-Employee Directors' Stock Option Plan of Rigel Pharmaceuticals, Inc.,

(8) Registration Statement (Form S-8. Nos. 333-212878 and 333-183130) pertaining to the 2011 Equity Incentive Plan of Rigel Pharmaceuticals, Inc.,

(9) Registration Statement (Form S-3 No. 333-203956) of Rigel Pharmaceuticals, Inc. and in the related Prospectuses, and

(10) Registration Statement (Form S-8. No. 333-214370) pertaining to the Inducement Plan of Rigel Pharmaceuticals, Inc.

of our reports dated March 7, 2017, with respect to the financial statements of Rigel Pharmaceuticals, Inc. and the effectiveness of internal control over financial reporting of Rigel Pharmaceuticals, Inc. included in this Annual Report (Form 10-K) of Rigel Pharmaceuticals, Inc. for the year ended December 31, 2016.

/s/ Ernst & Young LLP
Redwood City, California
March 7, 2017

Exhibit 31.1

CERTIFICATIONS

I, Raul R. Rodriguez, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rigel Pharmaceuticals, 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.

Date: March 7, 2017

/s/ Raul R. Rodriguez
Raul R. Rodriguez
Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Ryan D. Maynard, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rigel Pharmaceuticals, 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.

Date: March 7, 2017

/s/ Ryan D. Maynard

Ryan D. Maynard

Executive Vice President and Chief Financial Officer

Exhibit 32.1

CERTIFICATION

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Raul R. Rodriguez, Chief Executive Officer of Rigel Pharmaceuticals, Inc. (the "Company"), and Ryan D. Maynard, Executive Vice President and Chief Financial Officer of the Company, each hereby certifies that, to the best of his knowledge:

1. The Company's Annual Report on Form 10-K for the period ended December 31, 2016, to which this Certification is attached as Exhibit 32.1 (the "Annual Report") fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

In Witness Whereof, the undersigned have set their hands hereto as of March 7, 2017.

/s/ Raul R. Rodriguez	/s/ Ryan D. Maynard
Raul R. Rodriguez	Ryan D. Maynard
Chief Executive Officer	*Executive Vice President and Chief Financial Officer*

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Rigel Pharmaceuticals, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10- K), irrespective of any general incorporation language contained in such filing.