

RIGEL PHARMACEUTICALS INC

Form 10-K

March 01, 2011

Use these links to rapidly review the document

[TABLE OF CONTENTS](#)

[Item 8. Financial Statements and Supplementary Data](#)

[Table of Contents](#)

**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, 2010

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:**

Common Stock, par value \$.001 per share

**Name of each exchange on which registered:**

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

## Edgar Filing: RIGEL PHARMACEUTICALS INC - Form 10-K

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

Smaller reporting company

(Do not check if a  
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, 2010, the last business day of the registrant's most recently completed second fiscal quarter, was \$372,591,482. 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 February 23, 2011, there were 52,273,484 shares of the registrant's Common Stock outstanding.

### DOCUMENTS INCORPORATED BY REFERENCE

Items 10, 11, 12, 13 and 14 of Part III incorporate information by reference from the definitive proxy statement for the registrant's 2011 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 Contents

## TABLE OF CONTENTS

	<b>Page</b>
<b><u>PART I</u></b>	
<u>Item 1.</u> <u>Business</u>	<u>1</u>
<u>Item 1A.</u> <u>Risk Factors</u>	<u>14</u>
<u>Item 1B.</u> <u>Unresolved Staff Comments</u>	<u>28</u>
<u>Item 2.</u> <u>Properties</u>	<u>29</u>
<u>Item 3.</u> <u>Legal Proceedings</u>	<u>29</u>
<u>Item 4.</u> <u>Reserved</u>	<u>29</u>
<b><u>PART II</u></b>	
<u>Item 5.</u> <u>Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>30</u>
<u>Item 6.</u> <u>Selected Financial Data</u>	<u>32</u>
<u>Item 7.</u> <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>33</u>
<u>Item 7A.</u> <u>Quantitative and Qualitative Disclosures about Market Risk</u>	<u>44</u>
<u>Item 8.</u> <u>Financial Statements and Supplementary Data</u>	<u>46</u>
<u>Item 9.</u> <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	<u>74</u>
<u>Item 9A.</u> <u>Controls and Procedures</u>	<u>74</u>
<u>Item 9B.</u> <u>Other Information</u>	<u>76</u>
<b><u>PART III</u></b>	
<u>Item 10.</u> <u>Directors, Executive Officers and Corporate Governance</u>	<u>76</u>
<u>Item 11.</u> <u>Executive Compensation</u>	<u>76</u>
<u>Item 12.</u> <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>76</u>
<u>Item 13.</u> <u>Certain Relationships and Related Transactions, and Director Independence</u>	<u>76</u>
<u>Item 14.</u> <u>Principal Accounting Fees and Services</u>	<u>77</u>
<b><u>PART IV</u></b>	
<u>Item 15.</u> <u>Exhibits, Financial Statement Schedules</u>	<u>77</u>
<u>Signatures</u>	<u>81</u>

---

Table of Contents

**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 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act), that involve risks and uncertainties. We usually use words such as "may," "will," "should," "could," "expect," "plan," "anticipate," "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 results thereof; our corporate collaborations, and revenues that may be received from collaborations; our drug discovery technologies; our research and development expenses; protection of our intellectual property; sufficiency of our cash resources; and our operations and legal risks. 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 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. Business**

**Overview**

Rigel Pharmaceuticals, Inc. was incorporated in Delaware in June 1996, and is based in South San Francisco, California. We are a clinical-stage drug development company that discovers and develops novel, small-molecule drugs for the treatment of inflammatory and autoimmune diseases, as well as for muscle disorders. Our pioneering research focuses on intracellular signaling pathways and related targets that are critical to disease mechanisms. Our productivity has resulted in strategic collaborations with large pharmaceutical partners to develop and market our product candidates. Current product development programs include fostamatinib (previously referred to as R788), an oral syk inhibitor that has started its phase 3 clinical trial program for rheumatoid arthritis (RA) (partnered with AstraZeneca AB (AZ)), and R343, an inhaled syk inhibitor that is in clinical trials for asthma (partnered with Pfizer, Inc. (Pfizer)).

During 2010, we:

Entered into an exclusive worldwide license agreement with AZ for the global development and commercialization of our oral syk inhibitors, including fostamatinib. (February 2010);

Announced that we received an upfront payment of \$100.0 million from AZ in connection with the effectiveness of the worldwide license agreement with AZ. (May 2010);

Announced that we earned \$25.0 million from AZ for the fulfillment of two major milestones in the worldwide license agreement; the initiation of the phase 3 clinical program with fostamatinib in patients with RA and completion of the transfer of the fostamatinib long-term open label extension study from us to AZ. (September 2010);

Table of Contents

Announced that we received the *Licensing Deal of the Year* award from Scrip Intelligence at the Sixth Annual Scrip Awards Banquet. This award recognized the significance of our collaboration agreement with AZ to develop fostamatinib as a novel oral treatment for RA. (December 2010); and

Announced that the data for *TASKi2*, the 2009 phase 2b study of fostamatinib in patients with RA, was published in the *New England Journal of Medicine*. (September 2010).

**Strategy**

Our research team is focused on creating a portfolio of product candidates that may be developed as small molecule therapeutics for our own proprietary programs and/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 scientific and business strategy are to:

*develop a diverse portfolio of drug candidates that addresses a variety of therapeutic indications or that represent significant market opportunities;*

*utilize our robust discovery engine to rapidly discover and validate new product candidates in a broad range of therapeutic indications; and*

*establish strategic collaborations with pharmaceutical and biotechnology companies to develop and market our product candidates.*

**Product Development Programs**

Our product development portfolio features multiple novel, small-molecule drugs for the treatment of inflammatory and autoimmune diseases, as well as for muscle disorders.

**Partnered Clinical Programs**

***Fostamatinib (previously referred to as R788) Rheumatoid Arthritis***

*Disease background.* RA is a systemic autoimmune inflammatory disease that causes damage to the joints and other organs, affecting approximately 1 in 100 people in the U.S. It is a major cause of disability and is also associated with reduced life expectancy, especially if it is not adequately treated. Despite current treatment options, many patients still experience significant disease activity, including continued joint destruction leading to pain and disability, so new treatment options are needed.

The current treatment options for RA have significant potential side effects and other shortfalls, including gastrointestinal complications and kidney damage. RA patients may receive multiple drugs depending on the extent and aggressiveness of their disease. Most RA patients eventually require some form of disease modifying anti-rheumatic drugs (DMARDs). This category of drugs includes methotrexate and a variety of intravenously-delivered immunomodulatory agents (anti-tumor necrosis factor (TNF) inhibitors and co-stimulation inhibitors).

*Orally-available syk inhibitor program.* Fostamatinib is an orally bio-available syk inhibitor. It has a novel mechanism of action for the treatment of RA in which it reversibly blocks signaling in multiple cell types involved in inflammation and tissue degradation (e.g., macrophages, osteoclasts, mast cells and B cells). RA is an autoimmune disease characterized by chronic inflammation that affects multiple tissues, but typically produces its most pronounced symptoms in the joints.



Table of Contents

*TASKi2*

In July 2009, we announced that fostamatinib produced significant clinical improvement in RA patients in the *TASKi2* Phase 2b clinical trial, which evaluated 457 RA patients for up to six months. *TASKi2* was a multi-center, randomized, double-blind, placebo-controlled, parallel-dose clinical trial involving RA patients in the U.S., Latin America and Europe who had failed to respond to methotrexate alone. Patients received either 100 mg of fostamatinib b.i.d. (twice a day), 150 mg q.d. (once a day) or placebo.

Efficacy assessments for each participant were based on the American College of Rheumatology (ACR) criteria, which denotes at least 20% (ACR 20), at least 50% (ACR 50), or at least 70% (ACR 70) improvement, in addition to improvement denoted in the Disease Activity Score (DAS28), from each patient's baseline assessment at the end of the six month treatment period. The groups treated with 100 mg of fostamatinib b.i.d. and 150 mg q.d. reported higher response rates than the placebo group in all aforementioned criteria levels. The efficacy results for the two dosing groups were comparable, although the response rates for the 100 mg b.i.d. group were uniformly greater.

Consistent with the previous Phase 2a clinical trial (*TASKi1*), the onset effect of fostamatinib occurred within one week after the initiation of therapy and was maintained. The most frequent adverse events were expected based on results from *TASKi1* and appeared to be manageable. The most common clinically meaningful drug-related adverse events noted in *TASKi2* were diarrhea and hypertension. Dose reduction options were pre-specified in the trial protocol and, in cases where doses were reduced, patients generally completed the clinical trial with minimal safety issues. The mean increase in blood pressure at six months from baseline, using a last observation carry forward methodology, was less than 0.5 mmHg for the 150 mg q.d. dose group and approximately 1 mmHg for the 100 mg b.i.d. dose group. On the patients that had a history of high blood pressure, an elevated blood pressure level at screening or baseline, or were on blood pressure medication, approximately 29% in the 150 mg q.d. dose and 39% in the 100 mg b.i.d. dose groups, had blood pressure medication adjusted or initiated during the course of the study, compared with 12% of similar patients from the placebo group. On the patients that did not have a history of high blood pressure, were not on blood pressure medication or did not have an elevated blood pressure level at screening or baseline, approximately 4% from the 150 mg q.d. dose and 9% from the 100 mg b.i.d. dose groups had blood pressure medication initiated during the course of the study, compared with 3% of similar patients from the placebo group. For those patients who had their dose of blood pressure medications adjusted or initiated, their blood pressure was successfully reduced and was generally well controlled throughout the remainder of the trial. The blood pressure medications were standard doses of common blood pressure medication, such as angiotensin-converting enzyme (ACE) inhibitors or diuretics.

The most common adverse events in the trial overall were related to infections, though these were generally evenly distributed among the placebo and fostamatinib groups.

Data for *TASKi2* was published in the *New England Journal of Medicine* in September 2010.

*TASKi3*

In July 2009, we also announced results for the *TASKi3* Phase 2b clinical trial involving 219 RA patients who had failed to respond to at least one biologic treatment. In the *TASKi3* clinical trial, patients received either 100 mg of fostamatinib b.i.d. or placebo b.i.d. for up to three months. The group treated with fostamatinib did not report significantly higher ACR 20, ACR 50, ACR 70 and DAS28 response rates than the placebo group at three months, and therefore, the trial failed to meet its efficacy endpoints. The objective components (C-Reactive Protein and Erythrocyte Sedimentation Rate) of these ACR scores did show a statistically significant difference; however, the subjective reported response rate components did not show a statistically significant difference as compared to placebo. Although the ACR scores for the fostamatinib group were within the expected range in this

Table of Contents

patient population, the reported placebo response rates were considerably higher than seen in any other previous study of RA biologic failure patients and rose unaccountably between week six (at which point the reported response rates between fostamatinib and placebo were significantly different) and month three (when such reported response rates were no longer significantly different).

*TASKi3* was the first clinical trial for fostamatinib in which anatomical changes in the patients' wrists and hands were evaluated using Magnetic Resonance Imaging and scored using the RAMRIS (Rheumatoid Arthritis Magnetic Resonance Imaging Scoring) system. Those results showed improvements in the treated group versus the placebo group in the Synovitis and Osteitis scores, while the Erosion scores, known to be the slowest to change, showed no significant effect at three months.

Similar to *TASKi2*, the most common clinically meaningful drug-related adverse events noted in *TASKi3* were diarrhea and hypertension. Dose reduction options were pre-specified in the trial protocol and, in cases where doses were reduced, patients generally completed the clinical trial with minimal safety issues. The mean increase in blood pressure from baseline at three months, using a last observation carry forward methodology, was 3.2 - 3.6 mmHg for the fostamatinib group. In *TASKi3*, approximately 26% of the patients that had a history of high blood pressure, had an elevated blood pressure level at screening or baseline, or were on blood pressure medication, had their blood pressure medication adjusted or initiated during the course of the study, compared with 14% of similar patients in the placebo group. Approximately 5% of the patients with a history of high blood pressure, or who were not on blood pressure medication or did not have an elevated blood pressure level at screening or baseline, had their blood pressure medication initiated during the course of the study, compared with 3% of similar patients from the placebo group. For those patients who had dosages of blood pressure medications adjusted or initiated, their blood pressure was successfully reduced and was generally well controlled throughout the remainder of the trial. The blood pressure medications were standard doses of common blood pressure medications such as ACE inhibitors or diuretics.

The most common adverse events in the trial overall were related to infections, though these were generally evenly distributed among the placebo and fostamatinib groups.

*OSKIRA*

The OSKIRA (Oral Syk Inhibition in Rheumatoid Arthritis) Phase 3 clinical trial program is designed to investigate fostamatinib as a treatment for RA in patients with an inadequate response to DMARDs, including methotrexate (MTX). AZ announced that the OSKIRA clinical trial program will include three pivotal Phase 3 studies assessing the efficacy and tolerability of fostamatinib: two 12-month studies examining the effect of fostamatinib on patients responding inadequately to DMARDs (including MTX), and a six-month study assessing the effect of fostamatinib on patients who have previously responded inadequately to anti-TNF therapy. In September 2010, the first patient was enrolled in the OSKIRA clinical trial program. The OSKIRA clinical trial program also includes a fourth clinical trial, which is a six-month study for the evaluation of efficacy and safety of fostamatinib monotherapy in patients who are DMARD naïve, DMARD intolerant or have inadequate response to DMARDs. The fostamatinib clinical trial program is also expected to include long-term safety extension studies involving more than 2,000 of the patients recruited during the course of the Phase 2 and 3 clinical trial programs. The first anticipated filings of new drug applications with the U.S. Food and Drug Administration (FDA) and the European Medicines Agency (EMA) based on the OSKIRA clinical trial program are planned for 2013.

*Fostamatinib Other Indications*

In addition to RA, fostamatinib has been studied in patients with other immune disorders and some cancers. Our collaboration with AZ gives AZ sole responsibility for all development decisions for all indications except for one solid tumor oncology study, which was announced in June 2009 and is



Table of Contents

funded, designed and implemented by the National Cancer Institute (NCI). Any decisions regarding this study are the responsibility of the NCI.

**R343 Asthma**

*Disease background.* Allergic asthma is a chronic inflammatory disorder of the airways. Asthma affects the lower respiratory tract and is marked by episodic flare-ups, or attacks, that can be life threatening. In some patients, allergens, such as pollen, trigger the production of immunoglobulin E (IgE) antibodies, which then bind to mast cells and cause an intracellular signal that results in the release of various chemical mediators. When this process occurs repeatedly over time, it creates persistent inflammation of the airway passages, resulting in the chronic congestion and airway obstruction associated with allergic rhinitis and asthma, respectively.

*Inhaled syk inhibitor program.* R343 is a potent syk inhibitor that blocks IgE receptor signaling. Mast cells play important roles in both early and late phase allergic reactions, and syk inhibitors could potentially prevent both phases.

In the first quarter of 2005, we announced a collaborative research and license agreement with Pfizer for the development of inhaled products for the treatment of allergic asthma and other respiratory diseases, such as chronic obstructive pulmonary disease. The collaboration was focused on our pre-clinical small molecule compounds, which inhibit syk. R343 is the oral syk inhibitor small molecule at the center of this collaboration. Pfizer has completed the Phase 1a clinical trial of an inhaled formulation of R343, which commenced in December 2007 and resulted in a milestone payment of \$5.0 million to us. Pfizer completed an initial Phase 1b allergen challenge clinical trial. Pfizer has informed us that they plan on conducting an additional allergen challenge trial in 2011.

**Research/Preclinical Programs**

We are conducting proprietary research in the broad disease areas of inflammation/immunology 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.

In the area of inflammation /immunology, we have a lead candidate in our oral janus kinase 3 (Jak3) inhibitor program and expect to begin clinical studies by the end of 2011. This program is focused on the treatment of transplant rejection, but could also extend to indications including RA and psoriasis. We also have a lead candidate in our ophthalmological Jak3 program and expect to begin clinical studies for this program in 2011. This program is expected to focus on Sjögren's disease (keratoconjunctivitis sicca, or KS). Additionally, we expect to select a compound for preclinical development in 2011 from our protein kinase C theta (PKC $\theta$ ) inhibitor program, initially focusing on multiple sclerosis.

In the area of muscle atrophy and muscle endurance, we are focusing on several signaling pathways that are important for muscle homeostasis. We have developed a series of orally bioavailable compounds that activate AMP-activate protein kinase (AMPK), a critical enzyme that regulates metabolic/energy pathways in cells. Activation of AMPK has been shown to improve measurements of muscle endurance in animal models, and our molecules have demonstrated efficacy in animal models of endurance as well as diabetes. Our ongoing efforts are to determine structure/activity relationships of compounds and examine their experimental physiology. We expect to enter the clinic with this program in late 2012 or 2013 for the potential treatment of patients with congestive heart failure or chronic obstructive pulmonary disease who exhibit exercise intolerance.

We also have an active small molecule discovery program in muscle wasting. Muscle atrophy, or the loss of muscle mass, is associated with several disease states. Excessive loss of muscle in the context

Table of Contents

of illness can contribute significantly to both morbidity and mortality rates. Many conditions that have associated muscle loss, including cancer, chronic heart failure, chronic kidney disease, mechanical ventilation and aging (sarcopenia), have significant patient populations that may benefit from therapeutics that counter such muscle loss. One of our core programs in this area is focused on myostatin signaling. Myostatin is a cytokine that signals via the type II activin receptors (ACVR2A and ACVR2B) and has been shown to inhibit muscle growth. We are currently performing structure activity relationship studies on several promising molecules from initial ACVR2A/2B screens, and are developing new screens and models for this program. We expect to enter the clinic with this program in the late 2012 or 2013 for the potential indication of ventilator associated disuse atrophy.

**Corporate Collaborations**

We conduct research and development programs independently and in conjunction with our corporate collaborators. We currently have the following active collaborations with three major pharmaceutical/biotechnology companies: AZ, relating to the use of fostamatinib for the treatment of RA and other indications; Pfizer, relating to the use of R343 intrapulmonary (inhaled) asthma and allergy therapeutics; and Daiichi Sankyo Co., Ltd., in the field of oncology. None of these collaborations currently provide us with regular research reimbursement. In each of these collaborations, if certain conditions are met, we are entitled to receive future milestone payments and royalties. We cannot guarantee that these conditions will be met, or that research and development efforts will be successful. As a result, we may not receive any further milestone payments or royalties under these agreements.

*AstraZeneca*

In February 2010, we entered into an exclusive worldwide license agreement with AZ for the development and commercialization of our oral syk inhibitors for the treatment of human diseases other than those primarily involving respiratory or pulmonary dysfunction. The agreement includes a license of rights to fostamatinib, previously known as R788, our late-stage investigational product candidate for the treatment of RA and other indications. AZ is responsible for conducting and funding all future development, regulatory filings, manufacturing and global commercialization of products containing most of our oral syk inhibitors. The agreement became effective on March 26, 2010 and we received an upfront payment from AZ of \$100.0 million in April 2010.

Under the licensing agreement, our deliverables were: (i) granting a license of rights to fostamatinib, (ii) transfer of technology (know-how) related to fostamatinib, and (iii) conducting, at our expense, the fostamatinib open label extension study until it was transferred to AZ on September 25, 2010. We concluded that these deliverables should be accounted for as one single unit of accounting and we recognized the \$100.0 million upfront payment received in April 2010 from AZ ratably over the performance period from March 26, 2010, the effective date of the agreement, through September 25, 2010, the completion date of the last deliverable, which was the transfer of the fostamatinib long-term open label extension study to AZ. We elected a straight-line method for recognition of this upfront payment as the effort to advance and transfer the study was fairly consistent over the transition period.

On September 29, 2010, we announced that we earned \$25.0 million from AZ in consideration for the fulfillment of two major milestones in the agreement. The first milestone was the initiation of the Phase 3 clinical trial program with fostamatinib in patients with RA that was announced by AZ on September 29, 2010. The second milestone was the completion of the transfer of the fostamatinib long-term open label extension study to AZ, which was also completed in September 2010. AZ is required to pay us up to an additional \$320.0 million if specified development, regulatory and launch milestones are achieved for fostamatinib. We are also eligible to receive up to an additional \$800.0 million if specified sales performance milestones are achieved for fostamatinib, as well as significant stepped double-digit royalties on net worldwide sales, if any.

Table of Contents

Either party may terminate the agreement if the other party materially breaches the agreement and such breach remains uncured within 60 days from the date of notice, or in the event of insolvency of the other party. We may also terminate the agreement in its entirety if AZ challenges the validity, enforceability or scope of any of our patents licensed to AZ by us under the agreement. AZ may also terminate the agreement either without cause upon 180 days' written notice, or in the event of any change of control of Rigel upon 30 days' written notice. If neither party terminates the agreement, then the agreement will remain in effect until the cessation of all commercial sales of all products subject to the agreement, including fostamatinib.

*Pfizer*

In January 2005, we entered into a research collaboration with Pfizer that has a license component. The collaboration is for the development of inhaled products for the treatment of allergic asthma and other respiratory diseases such as chronic obstructive pulmonary disease. The collaboration was primarily focused on our preclinical small molecule compounds, which inhibit IgE receptor signaling in respiratory tract mast cells by blocking the signaling enzyme syk. A goal of the collaboration was for Pfizer to nominate a licensed compound to commence advanced preclinical development. Pfizer is responsible for the manufacture of all preclinical and clinical materials for each compound/product and all costs associated with development and commercialization. We did not have any further obligations to Pfizer after the research phase of the collaboration ended in February 2007.

In connection with this collaboration, Pfizer paid us upfront fees of \$10.0 million and purchased \$5.0 million of our common stock at a premium in 2005. We have earned and will continue to earn milestone payments in connection with certain clinical events, should they occur, as well as royalties from sales of the resulting products upon marketing approval, if any. Under the terms of the collaboration agreement, the aggregate of potential milestone amounts payable to us is \$175.0 million and mid-single-digit to low double-digit royalties on sales. In May 2006, we achieved the first milestone upon selection of the licensed compound and received a \$5.0 million milestone payment when Pfizer nominated R343 to commence advanced preclinical development in allergic asthma. In December 2007, we received a second milestone payment of \$5.0 million when Pfizer initiated a Phase 1 clinical trial on R343. No milestone payments were received in 2008, 2009 and 2010 as no further milestones were achieved. Pfizer completed an initial Phase 1b allergen challenge clinical trial. Pfizer has informed us that they plan on conducting an additional allergen challenge trial in 2011. Pfizer remains obligated to pay us various milestones and royalties in the future if certain conditions are achieved.

Pfizer may terminate the collaboration agreement for any reason upon prior written notice to us, for cause if we materially breach the agreement and such breach remains uncured, or if we become insolvent. We may terminate the collaboration agreement for cause if Pfizer fails to meet certain diligence efforts, materially breaches the agreement and such breach remains uncured, or becomes insolvent. If neither party exercises its option to terminate the collaboration agreement, then the agreement automatically terminates on the later of: (1) the last valid claim to expire covering a licensed product and (2) after a specified period from the launch of a licensed product.

*Daiichi Sankyo*

In August 2002, we signed an agreement for a collaboration with Daiichi Sankyo (Daiichi) to pursue research related to a specific target from a novel class of drug targets called ligases that control cancer cell proliferation through protein degradation. Daiichi paid us \$0.9 million at the time we entered into the agreement. Under the terms of the collaboration agreement, the aggregate of potential milestone amounts payable to us is \$33.9 million and we are entitled to receive royalties on any commercialized products to emerge from the collaboration at low to mid-single-digit royalties on sales. We have earned to date milestone payments totaling \$5.7 million, including a milestone payment of \$750,000 for the first designation of a rational design lead compound that we received in December

Table of Contents

2009, and may earn additional milestone payments in connection with certain clinical events. The research phase of this three-year collaboration expired in August 2005. Under the terms of the agreement, we retain the rights to co-develop and co-promote certain products resulting from this collaboration in North America, while Daiichi retains co-development and promotion rights in the remainder of the world.

Either party may terminate the collaboration agreement if the other party materially breaches the agreement and such breach remains uncured, or after a specified period from the end of a designated research period if no product is commercialized (unless the parties agree to extend the collaboration). The collaboration agreement can also be terminated by mutual written consent of the parties. If neither party exercises its option to terminate the collaboration agreement, then the agreement automatically terminates on the later of (1) the expiration of the last patent with a claim that covers the composition of matter of a product (or manufacture or use of a product under certain circumstances) and (2) after a specified period from the initial commercialization of a licensed product.

**Our Discovery Engine**

The technologies 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 search hundreds of millions of cells to 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 number of cells and proteins employed, our technology is labor intensive. The complexity of our technology requires a high degree of skill and diligence to perform successfully.

Table of Contents

In addition, successful application of our technology depends on a highly diverse collection of proteins to test in cells. 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. Although other companies may utilize technologies similar to certain aspects of our technology, we are unaware of any other company that employs the same combination of technologies that we do.

*Pharmacology and Preclinical Development*

We believe that the rapid characterization and optimization of lead 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 investigational new drug (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.

**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. We have over 95 pending patent applications and over 185 issued patents in the United States, as well as pending corresponding 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 United States 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 adjustments and extensions, in 2023, 2024 and 2026. Several of these patents will have patent term adjustments and 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

Table of Contents

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, currently 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. 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

Table of Contents

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 their competitors 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.

Table of Contents

**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 fiscal years 2010, 2009, and 2008.

**Government Regulation**

Our ongoing development activities are and will continue to be subject to extensive regulation by numerous governmental authorities in the United States and other countries, including the FDA, under the Federal Food, Drug and Cosmetic Act. The regulatory review and approval process is expensive and uncertain. Securing FDA approval requires the submission of extensive preclinical and clinical data and supporting information to the FDA for each indication to establish a product candidate's safety and efficacy.

Preclinical studies generally are conducted in laboratory animals to evaluate the potential safety and the efficacy of a product. Drug developers submit the results of preclinical studies to the FDA as part of an IND application that must be approved before clinical trials can begin in humans. Typically, clinical evaluation involves a time consuming and costly three-phase process.

Phase 1 Clinical trials are conducted with a small number of patients to determine the early safety profile, maximum tolerated dose and pharmacological properties of the product in human volunteers.

Phase 2 Clinical trials are conducted with groups of patients afflicted with a specific disease in order to determine preliminary efficacy, optimal dosages and expanded evidence of safety.

Phase 3 Large-scale, multi-center, comparative clinical trials are conducted with patients afflicted with a specific disease in order to determine safety and efficacy as primary support for regulatory approval by the FDA to market a product candidate for a specific disease.

The approval process takes many years, requires the expenditure of substantial resources and may involve ongoing requirements for post-marketing studies. Clinical trials are subject to oversight by institutional review boards and the FDA. In addition, clinical trials:

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 oversight;

may require large numbers of participants; 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.

Even if we are able to achieve success in our clinical testing, we, or our collaborative partners, must provide the FDA and foreign regulatory authorities with clinical data that demonstrates the safety and efficacy of our products in humans before they can be approved for commercial sale. We do not know whether any future clinical trials will demonstrate sufficient safety and efficacy necessary to obtain the requisite regulatory approvals or will result in marketable products. Our failure, or the failure of our strategic partners, to adequately demonstrate



the safety and efficacy of our products under development will prevent receipt of FDA and similar foreign regulatory approval and, ultimately, commercialization of our products.

Table of Contents

Any clinical trial may fail to produce results satisfactory to the FDA. Preclinical and clinical data can be interpreted in different ways, which could delay, limit or prevent regulatory approval. Negative or inconclusive results or adverse medical events during a clinical trial could cause a clinical trial to be repeated or a program to be terminated. In addition, delays or rejections may be encountered based upon additional government regulation from future legislation or administrative action or changes in FDA policy or interpretation 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, as well as other regulatory action against our potential products, collaborative partners or us.

Outside the United States, our ability to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities. The requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country. At present, foreign marketing authorizations are applied for at a national level, although within the European Union (EU), registration procedures are available to companies wishing to market a product in more than one EU member state. If the regulatory authority is satisfied that adequate evidence of safety, quality and efficacy has been presented, a marketing authorization will be granted. This foreign regulatory approval process involves all of the risks associated with FDA clearance.

**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 anticipated clinical trials.

**Employees**

As of December 31, 2010, we had 145 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, infectious diseases, immunology and oncology. Certain of our scientific and medical advisors and consultants receive an option to purchase our common stock and an honorarium for time spent assisting us.

**Available Information**

Our website is located at *www.rigel.com*. The information found on our website is not 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, our director and officers' Section 16 reports and other SEC filings 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, a copy of these reports is located 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

Table of Contents

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](http://www.sec.gov).

**Item 1A. Risk Factors**

*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 our corporate collaborations or license agreements are unsuccessful, 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 third parties with which we may collaborate, 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. Although Pfizer has informed us that they plan to conduct an allergen challenge trial in 2011, they may later decide to delay or discontinue the trial. 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 milestone payments, and we would not receive any royalties associated with such compound or product. 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.

In February 2010, we entered into an exclusive worldwide license agreement with AZ for the global development and commercialization of our oral syk inhibitors for the treatment of human diseases other than those primarily involving respiratory or pulmonary dysfunction. The agreement includes a license of rights to fostamatinib, our late-stage investigational product candidate for the treatment of RA and other indications. AZ started its Phase 3 clinical trial program in patients in RA in September 2010. Our collaboration agreement with AZ does not include a research phase. The research phase of our collaboration with Johnson & Johnson ended in 2003, and the research phases conducted at our facilities under our broad collaboration with Novartis Pharma AG (Novartis) ended in 2004. The research phase of our collaboration agreement with Daiichi ended in 2005. In 2004, we signed a new collaboration agreement with Merck & Co., Inc. (Merck), and the research phase of this collaboration ended in May 2007. In 2005, we signed a new collaboration agreement with Pfizer, and the research phase of this collaboration ended in February 2007. Our collaboration agreement with Merck Serono, which, as of February 2010, is no longer active, did not include a research phase. 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.

Table of Contents

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.

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.

***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 from our research and development.***

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;

Table of Contents

are subject to continuing FDA 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, 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 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 ensure 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.

***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;

we may discover that a product candidate may cause harmful side effects;

the results may not replicate the results of earlier, smaller trials;

we or the FDA or similar foreign regulatory authorities may suspend the trials;

the results may not be statistically significant;

patient recruitment may be slower than expected;

patients may drop out of the trials; and

regulatory requirements may change.

Table of Contents

We do not know whether we, or any of our collaborative partners, 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. 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.

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

At the present time, the majority of our operations are in various stages of drug identification and development. We currently have two product compounds in the clinical testing stage: one with indications for RA, as well as for certain solid tumors that is being implemented by the NCI, all of which indications are subject to a collaboration agreement with AZ; and one in Phase 1b testing and intended for allergic asthma, which is subject to a collaboration agreement with Pfizer. 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, and we do not expect any drugs resulting from our research to be commercially available for several years, if at all.

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, obtaining regulatory approvals, maintaining regulatory compliance, manufacturing, competition and costs and expenses that may exceed current estimates. For example, in our two Phase 2b clinical trials for fostamatinib in RA, *TASKi2* and *TASKi3*, the most common clinically meaningful drug-related adverse events noted were diarrhea and hypertension. In both our *TASKi2* and *TASKi3* Phase 2b clinical trials, a meaningfully higher percentage of patients in the fostamatinib treatment groups had blood pressure medication adjusted or initiated during the course of the clinical trials as compared to the placebo group. In larger future clinical trials, we may discover additional side effects and/or higher frequency of side effects than those observed in completed clinical trials. If approved by the FDA, the side effect profile of fostamatinib may also result in a narrowly approved indication for use of the product, especially in light of other drugs currently available to treat RA, dependent on the safety profile of fostamatinib relative to those drugs.

The results of preliminary and mid-stage studies do not necessarily predict clinical or commercial success, and larger later-stage clinical trials may fail to confirm the results observed in the previous studies. 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. For example, fostamatinib produced significant clinical improvement in RA patients who had failed to respond to methotrexate alone in our *TASKi2* Phase 2b clinical trial, but our *TASKi3* Phase 2b clinical trial failed to meet its efficacy endpoints in RA patients who had failed to respond to at least one biologic treatment. In addition, if we were to repeat either of the *TASKi2* and *TASKi3* Phase 2b clinical trials, any such additional trials may not confirm the results observed in the original trials. The Phase 3 clinical program evaluating fostamatinib in RA patients, initiated by our partner, AZ, may not show fostamatinib to be safe and effective for the treatment of RA patients. Finally, with respect to our own compounds in development, we have established anticipated timelines

Table of Contents

with respect to the initiation of clinical studies based on existing knowledge of the compound. However, we cannot provide assurance that we will meet any of these timelines for clinical development.

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.

***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. We have over 95 pending patent applications and over 185 issued patents in the United States, as well as pending corresponding 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 interferences before the United States Patent and Trademark Office. Interferences are complex and expensive legal proceedings and there is no assurance we will be successful in any such proceedings. An interference 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 ensure 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





Table of Contents

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 can be no assurance that our activities, or those of our licensors, will not infringe patents owned by 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.

***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. In February 2010, we entered into an exclusive worldwide license agreement with AZ for the global development and commercialization of our oral syk inhibitors for the treatment of human diseases other than those primarily involving respiratory or pulmonary dysfunction. The agreement includes a license of rights to fostamatinib, our late-stage investigational product candidate for the treatment of RA and other indications. The agreement became effective on March 26, 2010 and, in connection with the effectiveness of the agreement, we received an upfront payment of \$100.0 million in April 2010 from AZ. In October 2010, we received \$25.0 million from AZ in connection with the fulfillment of two major milestones in the agreement. The first milestone payment received was for initiation of the Phase 3 clinical program with fostamatinib in patients with RA that was announced by AZ in September 2010. The second milestone payment received was for the completion of the transfer of the fostamatinib long-term open label extension study to AZ. AZ is required to pay us up to an additional \$320.0 million if specified development, regulatory and launch milestones are achieved for fostamatinib. We are also eligible to receive up to an additional \$800.0 million if specified sales performance milestones are achieved for fostamatinib, as well as significant stepped double-digit royalties on net sales worldwide. We believe that our existing capital resources and the anticipated proceeds from our current collaborations will be sufficient to support our current and projected funding requirements through at least the next 12 months. We may need additional funds in the future and the amount of future funds needed will

Table of Contents

depend largely on the success of our internally developed programs as they proceed in later and more expensive clinical trials. Unless and until we are able to generate a sufficient amount of product and royalty revenue, 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 milestone 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, 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 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, including, but not limited to:

the progress and success of clinical trials and preclinical activities (including studies and manufacture of materials) of our product candidates conducted by our collaborative partners or licensees or us;

our ability to meet the milestones identified in our collaborative agreements that trigger payments to us from our collaboration partners;

the progress of research programs carried out by us;

any changes in the breadth of our research and development programs;

the progress of the research and development efforts of our collaborative partners;

our ability to acquire or license other technologies or compounds that we 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 intellectual property rights;

the costs and timing of regulatory approvals and filings by us and our collaborators; and

expenses associated with the pending and potential additional related purported securities class action lawsuits, as well as any unforeseen litigation.

Insufficient funds may require us to delay, scale back or eliminate some or all of our research and 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.

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

Although we generated operating income of approximately \$35.3 million for the year ended December 31, 2010, this resulted from the one-time upfront payment from AZ received in April 2010, as well as two milestone payments received from AZ in October 2010. We have historically operated at

Table of Contents

a loss 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 net operating losses in the next three years and there can be no assurance that we will generate operating income in the future. For the years ended December 31, 2009 and 2008, we incurred net losses of approximately \$111.5 million and \$132.3 million, respectively. Currently, our only potential source of revenues is upfront payments, research and development milestone and royalty payments pursuant to our collaboration arrangements. 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, 2010, we had an accumulated deficit of approximately \$575.4 million. The extent of our future losses or profitability is highly uncertain.

***Our ability to use net operating losses to offset future taxable income may be subject to certain limitations.***

In general, under Section 382 of the Internal Revenue Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change net operating losses to offset future taxable income. Our existing net operating losses and credits may be subject to limitations arising from previous and future ownership changes under Section 382 of the Internal Revenue Code. To the extent we cannot completely utilize net operating loss carryforwards or tax credits in our financial statements to offset future taxable income, our tax expense may increase in future periods.

***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 milestone 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 milestone payments 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 milestone 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 milestone payments from our collaborations with Janssen Pharmaceutica N.V., a division of Johnson & Johnson, Novartis, Daiichi, Merck, Merck Serono and Pfizer. We received an upfront payment of \$100.0 million in April 2010 and received milestone payments of \$25.0 million in October 2010 from AZ. Under many agreements, however, milestone 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.

Table of Contents

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.

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

Significant delays in clinical testing could materially impact our product development costs and timing. We do not know whether planned clinical trials will begin on time, will need to be halted or redesigned or will be completed on schedule, or at all. In addition, 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 study 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. While we have not yet experienced delays that have materially impacted our clinical trials or product development costs, delays of this sort could occur for the reasons identified above or other reasons. If we have delays in testing 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 have been named a defendant in a purported securities class action lawsuit. This, and potential similar or related litigation, could result in substantial damages and may divert management's time and attention from our business.***

On February 6, 2009, a purported securities class action lawsuit was commenced in the United States District Court for the Northern District of California, naming as defendants us and certain of our officers, directors and underwriters for our February 2008 public offering of common stock (the Stock Offering). An additional purported securities class action lawsuit containing similar allegations was subsequently filed in the United States District Court for the Northern District of California on February 20, 2009. By order of the Court dated March 19, 2009, the two lawsuits were consolidated into a single action. On June 9, 2009, the Court issued an order naming the Inter-Local Pension Fund GCC/IBT as lead plaintiff and Robbins Geller Rudman & Dowd LLP (formerly Coughlin Stoia) as lead counsel. The lead plaintiff filed a consolidated complaint on July 24, 2009. We filed a motion to dismiss on September 8, 2009. On December 21, 2009, the Court granted our motion and dismissed the consolidated complaint with leave to amend. Plaintiff filed its consolidated amended complaint on January 27, 2010. The lawsuit alleged violations of the Securities Act of 1933, as amended (the Securities Act), and the Exchange Act in connection with allegedly false and misleading statements made by us related to the results of the Phase 2a clinical trial of our product candidate fostamatinib (then known as R788). The plaintiff sought damages, including rescission or rescissory damages for purchasers in the Stock Offering, an award of their costs and injunctive and/or equitable relief for purchasers of our common stock during the period between December 13, 2007 and February 9, 2009,

Table of Contents

including purchasers in the Stock Offering. We filed a motion to dismiss the consolidated amended complaint on February 16, 2010. On August 24, 2010, the Court issued an order granting our motion and dismissed the consolidated complaint with leave to amend. On September 22, 2010, plaintiff filed a notice informing the Court that it will not amend its complaint and requested that the Court enter a final judgment. On October 28, 2010, the plaintiff submitted a proposed judgment requesting entry of such judgment in favor of the defendants. On November 1, 2010, judgment was entered dismissing the action. The plaintiff filed a notice of appeal on November 15, 2010, appealing the district court's order granting our motion to dismiss the consolidated amended complaint. The plaintiff filed its opening brief on February 23, 2011. Our opposition brief is due on or before March 25, 2011.

We believe that we have meritorious defenses and intend to defend the lawsuit vigorously. This lawsuit and any other related 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 the litigation is necessarily uncertain, and we could be forced to expend significant resources in the defense of this suit, 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 the litigation. We are not currently able to estimate the possible cost to us from this matter, and we cannot be certain how long it may take to resolve this matter or the possible amount of any damages that we may be required to pay. We have not established any reserves for any potential liability relating to this lawsuit. 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 this action 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. In addition, the uncertainty of the currently pending litigation could lead to increased volatility in our stock price.

***We lack the capability to manufacture compounds for 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 testing. 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 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. 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 of clinical trials that we have currently planned.

Table of Contents

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.

*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. 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



Table of Contents

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 their competitors 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 generate revenues will be diminished if our collaborative partners fail to obtain acceptable prices or an adequate level of reimbursement for products from third-party payors 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 payors 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 any of our collaborators would receive for any products in the future. Further, cost control initiatives could adversely affect 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;

Table of Contents

private health insurers; and

other third-party payors.

Significant uncertainty exists as to the reimbursement status of newly- approved healthcare products. Third-party payors, including Medicare, are challenging the prices charged for medical products and services. Government and other third-party payors 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 payors 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.

***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.

***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.

Table of Contents

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

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, 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 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 interest income and value of our investments may be impacted by further declines in interest rates and the broader effects of the recent turmoil in the global credit markets.***

Recently, the credit markets and the financial services industry have been experiencing a period of unprecedented turmoil and upheaval. As a result of this turmoil, the interest paid on certain of our investments may decrease and the value of certain securities we hold may decline in the future, which could negatively affect our financial condition, cash flows and reported earnings.

***Our stock price may be volatile, and our stockholders' investment in our 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 clinical trials and preclinical activities (including studies and manufacture of materials) of our product candidates conducted by us or our collaborative partners or licensees;

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;

Table of Contents

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;

economic and other external factors or other disaster or crisis; and

period-to-period fluctuations in financial results.

***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 may need to raise 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. If we or our stockholders 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.

***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

## Edgar Filing: RIGEL PHARMACEUTICALS INC - Form 10-K

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 Comments**

None.

Table of Contents

**Item 2. Properties**

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. The lease expires in January 2018. We believe our facilities are in good operating condition and that the leased real property is adequate for all present and near term uses.

**Item 3. Legal Proceedings**

On February 6, 2009, a purported securities class action lawsuit was commenced in the United States District Court for the Northern District of California, naming as defendants us and certain of our officers, directors and underwriters for the Stock Offering. An additional purported securities class action lawsuit containing similar allegations was subsequently filed in the United States District Court for the Northern District of California on February 20, 2009. By order of the Court dated March 19, 2009, the two lawsuits were consolidated into a single action. On June 9, 2009, the Court issued an order naming the Inter-Local Pension Fund GCC/IBT as lead plaintiff and Robbins Geller Rudman & Dowd LLP (formerly Coughlin Stoia) as lead counsel. The lead plaintiff filed a consolidated complaint on July 24, 2009. We filed a motion to dismiss on September 8, 2009. On December 21, 2009, the Court granted our motion and dismissed the consolidated complaint with leave to amend. Plaintiff filed its consolidated amended complaint on January 27, 2010. The lawsuit alleged violations of the Securities Act and the Exchange Act in connection with allegedly false and misleading statements made by us related to the results of the Phase 2a clinical trial of our product candidate fostamatinib (then known as R788). The plaintiff sought damages, including rescission or rescissory damages for purchasers in the Stock Offering, an award of their costs and injunctive and/or equitable relief for purchasers of our common stock during the period between December 13, 2007 and February 9, 2009, including purchasers in the Stock Offering. We filed a motion to dismiss the consolidated amended complaint on February 16, 2010. On August 24, 2010, the Court issued an order granting our motion and dismissed the consolidated complaint with leave to amend. On September 22, 2010, plaintiff filed a notice informing the Court that it will not amend its complaint and requested that the Court enter a final judgment. On October 28, 2010, the plaintiff submitted a proposed judgment requesting entry of such judgment in favor of the defendants. On November 1, 2010, judgment was entered dismissing the action. The plaintiff filed a notice of appeal on November 15, 2010, appealing the district court's order granting our motion to dismiss the consolidated amended complaint. The plaintiff filed its opening brief on February 23, 2011. Our opposition brief is due on or before March 25, 2011.

We believe that we have meritorious defenses and intend to defend the lawsuit vigorously. This lawsuit and any other related 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 the litigation is necessarily uncertain, and we could be forced to expend significant resources in the defense of this suit, 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 the litigation. We are not currently able to estimate the possible cost to us from this matter, and we cannot be certain how long it may take to resolve this matter or the possible amount of any damages that we may be required to pay. We have not established any reserves for any potential liability relating to this lawsuit. 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 this action 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. In addition, the uncertainty of the currently pending litigation could lead to increased volatility in our stock price.

**Item 4. Reserved**

Table of Contents**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 on a predecessor to the Nasdaq Global Market 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
<b>Year Ended December 31, 2009</b>		
First Quarter	\$ 8.85	\$ 4.19
Second Quarter	\$ 13.32	\$ 5.39
Third Quarter	\$ 14.75	\$ 6.58
Fourth Quarter	\$ 10.15	\$ 6.03
<b>Year Ended December 31, 2010</b>		
First Quarter	\$ 10.03	\$ 7.21
Second Quarter	\$ 8.49	\$ 6.02
Third Quarter	\$ 8.83	\$ 6.79
Fourth Quarter	\$ 8.78	\$ 7.45

On February 23, 2011, the last reported sale price for our common stock on the Nasdaq Global Market was \$6.73 per share.

 **Holders**

As of February 23, 2011, there were approximately 121 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.

Table of Contents

**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, 2005 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

---

\*

\$100 invested on 12/31/05 in stock or index-including reinvestment of dividends at fiscal year ending December 31.



Table of Contents**Item 6. Selected Financial Data**

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 Years Ended December 31,				
	2010	2009	2008	2007	2006
	(in thousands, except per share amounts)				
<b>Statements of Operations Data:</b>					
Contract revenues from collaborations	\$ 125,000	\$ 750	\$	\$ 12,600	\$ 33,473
Costs and expenses:					
Research and development	64,392	90,743	109,670	70,364	56,968
General and administrative	25,291	20,903	27,044	21,763	19,552
Restructuring charges		1,141			
<b>Total costs and expenses</b>	<b>89,683</b>	<b>112,787</b>	<b>136,714</b>	<b>92,127</b>	<b>76,520</b>
Income (loss) from operations	35,317	(112,037)	(136,714)	(79,527)	(43,047)
Other income	2,361				
Interest income	303	600	4,439	5,476	5,700
Interest expense	(91)	(203)	(160)	(221)	(290)
Income (loss) before income taxes	37,890	(111,640)	(132,435)	(74,272)	(37,637)
Income tax benefit		93	89		
Net income (loss)	37,890	(111,547)	(132,346)	(74,272)	(37,637)
Net income (loss) per share:					
Basic	\$ 0.73	\$ (2.73)	\$ (3.67)	\$ (2.57)	\$ (1.51)
Diluted	\$ 0.72	\$ (2.73)	\$ (3.67)	\$ (2.57)	\$ (1.51)
Weighted average shares used in computing net income (loss) per share:					
Basic	52,055	40,876	36,025	28,936	24,936
Diluted	52,573	40,876	36,025	28,936	24,936

	As of December 31,				
	2010	2009	2008	2007	2006
	(in thousands)				

Edgar Filing: RIGEL PHARMACEUTICALS INC - Form 10-K

**Balance Sheet Data:**

Cash, cash equivalents and available-for-sale securities	\$ 177,295	\$ 133,318	\$ 134,477	\$ 108,296	\$ 104,471
Working capital	168,600	118,195	113,936	95,018	96,776
Total assets	186,695	140,744	143,858	115,789	113,240
Capital lease obligations, less current portion	45	883	2,053	784	1,082
Accumulated deficit	(575,434)	(613,324)	(501,777)	(369,431)	(295,159)
Total stockholders' equity	166,131	109,867	104,165	82,182	87,229

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

Table of Contents

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

**Overview**

We are a clinical-stage drug development company that discovers and develops novel, small-molecule drugs for the treatment of inflammatory and autoimmune diseases, as well as for muscle disorders. Our pioneering research focuses on intracellular signaling pathways and related targets that are critical to disease mechanisms. Our productivity has resulted in strategic collaborations with large pharmaceutical partners to develop and market our product candidates. Current product development programs include fostamatinib, an oral syk inhibitor that has started its phase 3 clinical trial program for RA (partnered with AZ), and R343, an inhaled syk inhibitor that is in clinical trials for asthma (partnered with Pfizer).

Since inception, we have financed our operations primarily through the sale of equity securities, contract payments under our collaboration agreements and equipment financing arrangements. Our research and development activities, including preclinical studies and clinical trials, consume substantial amounts of capital. As of December 31, 2010, we had approximately \$177.3 million in cash, cash equivalents and available-for-sale securities. We believe that our existing capital resources will be sufficient to support our current and projected funding requirements through at least the next twelve months. Until we are able to generate sufficient amounts of product and royalty revenues, we expect to finance future cash needs through collaboration and licensing arrangements or public and/or private equity or debt offerings, as well as through interest income earned on the investment of our cash balances and short-term investments.

**Product Development Programs**

Our product development portfolio features multiple novel, small-molecule drug candidates whose specialized mechanisms of action are intended to provide therapeutic benefit for a range of inflammatory and autoimmune disorders, as well as for muscle disorders. 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.

**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 expense 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 robust discovery engine to rapidly 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

Table of Contents

research consultants. "Other" expenses primarily include allocated stock-based compensation expense relating to personnel in research and development groups and allocated facilities costs.

In addition to reviewing the three categories of research and development expense 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 expense by category.

	Years Ended December 31,		
	2010	2009	2008
	(in thousands)		
<b>Categories:</b>			
Research	\$ 20,082	\$ 18,845	\$ 23,446
Development	19,000	46,226	57,173
Other	25,310	25,672	29,051
	\$ 64,392	\$ 90,743	\$ 109,670

"Other" expenses mainly represent allocated stock-based compensation expenses of approximately \$9.0 million, \$8.9 million and \$12.3 million for the years ended December 31, 2010, 2009 and 2008, respectively, and allocated facilities costs of approximately \$16.3 million for the year ended December 31, 2010 and \$16.7 million for each of the years ended December 31, 2009 and 2008.

For the period from January 1, 2007 to December 31, 2010, total research and development expense by category was \$86.3 million, \$146.6 million, and \$102.3 million, for research, development, and other, respectively.

For the year ended December 31, 2010, the major portion of our research and development expense was related to the extension trials in RA patients and the oral Jak3 inhibitor program. For the years ended December 31, 2009 and 2008, the major portion of our research and development expense was associated with our two Phase 2b clinical trials (TASKi2 and TASKi3), as well as the related extension trials in RA patients. The expenses for these programs are included under "Development" in the table above.

The Phase 2 clinical trials of fostamatinib in RA were completed in 2009. We licensed the rights to fostamatinib to AZ in February 2010. On September 29, 2010, AZ announced the enrollment of the first patient in the Phase 3 clinical program for fostamatinib, referred to as OSKIRA. The first anticipated filings of new drug applications with the FDA and the EMA based on the OSKIRA clinical trial program are planned for 2013. AZ will be responsible for conducting and funding all future development, regulatory filings, manufacturing and global commercialization of products containing oral syk inhibitors.

The scope and magnitude of future research and development expense are difficult to predict given the number of clinical trials that we will need to conduct for any of our potential products, as well as our limited capital resources. 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. Each of these steps is typically more expensive than the previous step. Success in early stages of development often results in increasing expenditures for a given product candidate. 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

Table of Contents

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 study.

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. We do not have a reasonable basis to determine when or if material net cash inflows from the commercialization and sale of our drug candidates will occur. Commercialization of our product candidates depends upon successful completion of extensive preclinical studies and clinical trials to demonstrate their safety and efficacy for humans. We do not know whether we, or any of our current or potential future collaborative partners, will undertake clinical trials of potential products beyond the trials already concluded and the trials currently in process. It will take us, or our current or potential future 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. Moreover, we or our current or potential future collaborative partners may decide to discontinue development of any project at any time for regulatory, commercial, scientific or other reasons. To date, we have not commercialized any of our drug candidates, and we may never do so.

For a discussion of the risks and uncertainties associated with the timing and costs of completing the development of our drug candidates, see "Part I. Item 1A. Risk Factors," including in particular the following risks:

"If our corporate collaborations or license agreements are unsuccessful, our research and development efforts could be delayed."

"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."

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

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

"Our future funding requirements will depend on many uncertain factors."

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

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

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



Table of Contents

principles (GAAP). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We evaluate our estimates, including those related to the terms of our research and development collaborations (i.e. revenue recognition of upfront fees and certain milestone payments), investments, stock-based compensation, impairment issues, the estimated useful life of assets, estimated accruals and contingencies, on an on-going 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, 2010 as compared to those previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2009. 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 Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 808, *Collaboration Arrangements*. 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 delivered element has stand-alone value to the customer and whether there is objective and reliable evidence of the fair value of any undelivered items. The consideration we receive is allocated among the separate units based on their respective fair values, and the applicable revenue recognition criteria are applied to each of the separate units. Advance payments received in excess of amounts earned are classified as deferred revenue until earned.

Non-refundable, up-front payments received in connection with research and development collaboration agreements, including technology access fees, are deferred and recognized on a straight-line basis over the relevant periods of continuing involvement, generally the research term. When a research term is not specified, we estimate the time it will take us to complete our deliverables under the contract and recognize the upfront fee using the straight-line method over that time period. We review our estimates every quarter for reasonableness.

Revenues related to collaborative research with our corporate collaborators are recognized as research services are performed over the related development periods for each agreement. Under these agreements, we are required to perform research and development activities as specified in each respective agreement. The payments received are not refundable and are generally 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 term of the respective agreements. It is our policy to recognize revenue based on our level of effort expended, however, revenue recognized will not exceed amounts billable under the agreement.

Revenues associated with substantive, at-risk milestones pursuant to collaborative agreements are recognized upon achievement of the applicable milestones.

Table of Contents**Stock-Based Compensation**

Total stock-based compensation expense related to our officers, directors and all other employees and consultants stock option plans that we recognized for the year ended December 31, 2010, 2009 and 2008 was comprised as follows:

	Years Ended December 31,			Aggregate	Aggregate
	2010	2009	2008	Change	Change
				2010 from 2009	2009 from 2008
	(in thousands)				
<b>Stock-based compensation expense from:</b>					
<i>Officer, director and employee options</i>	\$ 16,405	\$ 13,217	\$ 23,565	\$ 3,188	\$ (10,348)
<i>Consultant options</i>	31	99	194	(68)	(95)
<i>Restructuring charges</i>		122		(122)	122
<b>Total</b>	<b>\$ 16,436</b>	<b>\$ 13,438</b>	<b>\$ 23,759</b>	<b>\$ 2,998</b>	<b>\$ (10,321)</b>

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 the entire 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 increase in stock-based compensation expense for the year ended December 31, 2010, as compared to the same period in 2009, was primarily due to the stock-based compensation expense amortization resulting from the increase in the number of options granted in the second quarter of 2010, as compared to the same period in 2009, as well as an additional full quarter of stock-based compensation expense amortization in the first quarter of 2010 related to options granted in late March of 2009, which were fully amortized as of the end of the first quarter of 2010. The decrease in stock-based compensation expense for the year ended December 31, 2009, as compared to the same period in 2008, was primarily due to the lower valuation of options granted in the first quarter of 2009 and only three quarters of the stock-based compensation expense related to these grants being recognized in 2009 because of a late March 2009 grant date.

In February 2009, we announced that we cut our research programs in virology and oncology as well as terminated certain related development and administrative staff, which resulted in the dismissal of 36 employees, or approximately 20% of our workforce. This measure was intended to maintain our emphasis on our active preclinical and clinical programs, while conserving our resources. As part of a package we offered the terminated employees, we extended the date the terminated employees had to exercise their vested options to December 31, 2009 rather than 90 days from the termination date as is typically required under our equity incentive plan. We recorded \$122,000 of non-cash stock-based compensation expense incurred in connection with this modification in the first quarter of 2009.

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



Table of Contents

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 also record charges associated with options granted to consultants reflecting the fair value and periodic fair value re-measurement of outstanding consultant options under FASB ASC 505-50. The valuation is based upon the current market value of our common stock and other assumptions, including the expected future volatility of our stock price, risk-free interest rate and expected term. We amortize stock-based compensation related to consultants using a straight-line attribution method consistent with the method used for employees and with the attribution election we made upon adoption of FASB ASC 718.

**Research and Development Accruals**

We have various contracts with third parties related to our research and development activities. Costs that are incurred but not billed to us as of the end of the period are 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. Clinical trial contract expenses are accrued based on units of activity reported by third parties. 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 by third parties are expensed at the time of purchase. Many of our estimates are based significantly or in part on information provided by third parties. If such information were not reported properly, our research and development expense amounts could be misstated.

**Results of Operations****Years Ended December 31, 2010, 2009 and 2008****Revenues**

	Years Ended December 31,			Aggregate Change	Aggregate Change
	2010	2009	2008	2010 from 2009	2009 from 2008
	(in thousands)				
<b>Contract revenues from collaborations</b>	\$ 125,000	\$ 750	\$	\$ 124,250	\$ 750

Revenues by collaborator were:

	Years Ended December 31,			Aggregate Change	Aggregate Change
	2010	2009	2008	2010 from 2009	2009 from 2008
	(in thousands)				
<b>AstraZeneca</b>	\$ 125,000	\$	\$	\$ 125,000	\$
<b>Daiichi Sankyo</b>		750		(750)	750
<b>Total</b>	\$ 125,000	\$ 750	\$	\$ 124,250	\$ 750

Contract revenues of \$125.0 million in 2010 consisted of the \$100.0 million upfront payment from AZ pursuant to the exclusive worldwide license agreement for fostamatinib and \$25.0 million in milestone payments earned under the agreement for the initiation of the Phase 3 clinical program with fostamatinib in patients with RA and for the completion of transferring the fostamatinib long-term open label extension study to AZ. Contract revenues of \$750,000 in 2009 consisted of a milestone payment from Daiichi for the first designation of a rational design lead compound. There were no contract revenues reported during the year ended December 31, 2008.

Table of Contents

The increase in revenues for the year ended December 31, 2010, as compared to the similar period in 2009, was due to the recognition of the upfront payment and milestone payments from AZ in 2010 as discussed above. The increase in revenues for the year ended December 31, 2009, as compared to the similar period in 2008, was due to the recognition of the milestone payment from Daiichi in December 2009. We had no deferred revenue as of December 31, 2010. Our potential future revenues in 2011 may include certain milestone payments from our current collaboration partners and upfront and milestone payments from new collaboration partners we enter into agreements with in the future.

**Research and Development Expense**

	Years Ended December 31,			Aggregate	Aggregate
	2010	2009	2008	Change	Change
				2010 from 2009	2009 from 2008
	(in thousands)				
<b>Research and development expense</b>	\$ 64,392	\$ 90,743	\$ 109,670	\$ (26,351)	\$ (18,927)
<b>Stock-based compensation expense included in research and development expense</b>	\$ 9,025	\$ 8,937	\$ 12,272	\$ 88	\$ (3,335)

The decrease in research and development expense for the year ended December 31, 2010, compared to the same period in 2009, was primarily due to the completion of our two Phase 2b clinical trials, *TASKi2* and *TASKi3*, in July 2009, as well as the completion of the transfer of the fostamatinib open label extension study to AZ in September 2010, partially offset by the increase in costs related to the oral Jak3 inhibitor program. The decrease in research and development expenses for the year ended December 31, 2009, compared to the same period in 2008, was primarily due to a decrease in clinical trial costs as a result of the completion of *TASKi2* and *TASKi3* in July 2009, the decrease in stock-based compensation expense discussed under "Stock-Based Compensation" above, and cost savings resulting from the restructuring implemented in the first quarter of 2009, as discussed under "Restructuring Charges" below.

**General and Administrative Expense**

	Years Ended December 31,			Aggregate	Aggregate
	2010	2009	2008	Change	Change
				2010 from 2009	2009 from 2008
	(in thousands)				
<b>General and administrative expense</b>	\$ 25,291	\$ 20,903	\$ 27,044	\$ 4,388	\$ (6,141)
<b>Stock-based compensation expense included in general and administrative expense</b>	\$ 7,411	\$ 4,379	\$ 11,487	\$ 3,032	\$ (7,108)

The increase in general and administrative expense for the year ended December 31, 2010, as compared to the same period in 2009, was primarily due to the increase in stock-based compensation expense discussed under "Stock-Based Compensation Expense" above, and certain one-time investment banking fees associated with the closing of our transaction with AZ. The decrease in general and administrative expenses for the year ended December 31, 2009, as compared to the same period in 2008, was primarily attributable to a decrease in stock-based compensation expense discussed under "Stock-Based Compensation" above, partially offset by the increase in bonus expense for 2009.

Table of Contents**Restructuring Charges**

	Years Ended December 31,			Aggregate Change	Aggregate Change
	2010	2009	2008	2010 from 2009	2009 from 2008
	(in thousands)				
<b>Restructuring charges</b>	\$	\$ 1,141	\$	\$ (1,141)	\$ 1,141
<b>Stock-based compensation expense included in restructuring charges</b>	\$	\$ 122	\$	\$ (122)	\$ 122

In February 2009, we announced that we cut our research programs in virology and oncology as well as terminated certain related development and administrative staff, which resulted in the dismissal of 36 employees, or approximately 20% of our workforce. This measure was intended to maintain our emphasis on our active preclinical and clinical programs, while conserving our resources. As a result of the restructuring implemented in the first quarter of 2009, we recorded restructuring charges of \$1.1 million, including \$1.0 million of workforce reduction costs (which had been paid as of December 31, 2009) and \$122,000 of non-cash stock-based compensation expense incurred in connection with the extension of the date the terminated employees had to exercise their vested options to December 31, 2009 rather than 90 days from the termination date as is typically required under our equity incentive plan.

**Other income**

	Years Ended December 31,			Aggregate Change	Aggregate Change
	2010	2009	2008	2010 from 2009	2009 from 2008
	(in thousands)				
<b>Other income</b>	\$ 2,361	\$	\$	\$ 2,361	\$

Other income in 2010 consists of our total cash grant from the Internal Revenue Service of approximately \$2.4 million related to the previously filed applications under the Qualifying Therapeutic Discovery Projects (Section 48D of the Internal Revenue Code). Of this amount, \$2.1 million was received in 2010 and the remainder is expected to be received in 2011.

**Interest income**

	Years Ended December 31,			Aggregate Change	Aggregate Change
	2010	2009	2008	2010 from 2009	2009 from 2008
	(in thousands)				
<b>Interest income</b>	\$ 303	\$ 600	\$ 4,439	\$ (297)	\$ (3,839)

Interest income results from our interest-bearing cash and investment balances. The decrease in interest income for the year ended December 31, 2010, as compared to the same period in 2009, was due to lower interest rates in 2010. The decrease in interest income for the year ended December 31, 2009, as compared to the same period in 2008, was due to lower average cash balances and lower interest rates earned on our investments in 2009.

**Interest expense**

	Years Ended December 31,			Aggregate Change	Aggregate Change
	2010	2009	2008	2010 from 2009	2009 from 2008
	(in thousands)				
<b>Interest expense</b>	\$ (91)	\$ (203)	\$ (160)	\$ 112	\$ (43)