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# RIGEL

2008 Annual Report



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Washington, DC 20549

**Dear Stockholders:**

In the past year, Rigel has taken major steps forward in developing our lead product candidate, R788, a Syk kinase inhibitor that could introduce a new class of oral DMARDs (also known as disease-modifying antirheumatic drugs) for the treatment of rheumatoid arthritis (RA). This same agent has also shown favorable results as a potential treatment for certain B-cell lymphomas, immune thrombocytopenic purpura and other immune system disorders. With this list of possible indications, R788 has the potential to become a blockbuster drug that may address the needs of many severely ill patients.

Rigel has devoted much of the past year to the implementation of advanced clinical trials with R788. We expect to enter Phase 3 clinical trials for the treatment of RA next year and, pending the results of those trials, to file a new drug application (NDA) with the U.S. FDA in 2012. While this timeframe may seem distant with numerous objectives still to be achieved, we are now beginning to see the finish line for R788.

**R788 TASKi TRIALS AND PARTNERSHIP**

In June 2008, Rigel initiated two Phase 2b clinical trials of R788, TASKi2 and TASKi3, in patients with RA. These are the largest clinical trials of R788 undertaken to date with more than 650 patients combined. TASKi2 and TASKi3 will primarily measure the efficacy of R788 based on American College of Rheumatology responder rates. We recently announced that enrollment in both of these clinical trials is moving forward ahead of schedule and that we expect to have results this summer.

We expect the additional information that we receive about R788 from the TASKi clinical trials will have a positive impact on securing an optimal partnership arrangement for R788. We plan to have a collaboration in place prior to the initiation of Phase 3 clinical trials in RA.

**RESEARCH AND DEVELOPMENT (R&D) FOCUS**

This year we have continued to streamline our R&D efforts at Rigel. We have sustained our primary R&D focus on immune and inflammatory diseases and moved our secondary focus to metabolic diseases and certain cancers. We expect that these therapeutic areas will produce a continual stream of major product opportunities.

**FINANCIALS**

We ended 2008 with \$134.5 million in cash, cash equivalents and available-for-sale securities. We believe this amount will enable us to maintain our current development priorities through June 2010. By that time, we expect to have a new partnership agreement in place to support the future development and potential commercialization of R788.

**LOOKING AHEAD**

2008 was a volatile year for our industry and for the economy overall, and that was reflected in our stock price. We remain devoted to moving R788 into later stage clinical trials. In 2009, we expect to receive the results of our Phase 2b clinical trials and further clarity regarding R788's potential. We look forward to having more information to share about R788, as well as about some of our emerging clinical research programs, as the year unfolds.

Many thanks to the employees of Rigel who dedicate themselves to the pursuit of novel ways to understand and treat diseases, and to our stockholders who continue to support our mission to bring important therapeutics to the market.

Sincerely,



James M. Gower  
Chairman and Chief Executive Officer

**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, 2008**

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 Number)

**1180 Veterans Blvd.  
South San Francisco, California**  
(Address of principal executive offices)

**94080**  
(Zip Code)

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

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

**Title of each class:**

**Name of exchange on which registered:**

Common Stock, par value \$.001 per share

The Nasdaq Global Market

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

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of 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 or a non-accelerated filer. See the definitions of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act).

Large accelerated filer

Accelerated filer

Non-accelerated filer   
(Do not check if a smaller reporting company)

Smaller reporting company

Indicate by a check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2) 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, 2008, the last business day of the registrant's most recently completed second fiscal quarter, was \$821,195,930. 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 20, 2009, there were 36,700,860 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 Annual Meeting of Stockholders to be held on June 4, 2009.

**SEC  
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Section  
APR 16 2009  
Washington, DC  
101**

## TABLE OF CONTENTS

	<u>Page</u>
<b>PART I</b>	
Item 1. Business . . . . .	1
Item 1A. Risk Factors . . . . .	14
Item 1B. Unresolved Staff Comments . . . . .	28
Item 2. Properties . . . . .	28
Item 3. Legal Proceedings . . . . .	28
Item 4. Submission of Matters to a Vote of Security Holders . . . . .	28
<b>PART II</b>	
Item 5. Market for the Registrant's Common Equity and Related Stockholder Matters . . . . .	29
Item 6. Selected Financial Data . . . . .	30
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations . . . . .	31
Item 7A. Quantitative and Qualitative Disclosures about Market Risk . . . . .	41
Item 8. Financial Statements and Supplementary Data . . . . .	42
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure . . . . .	68
Item 9A. Controls and Procedures . . . . .	68
Item 9B. Other Information . . . . .	70
<b>PART III</b>	
Item 10. Directors and Executive Officers of the Registrant . . . . .	70
Item 11. Executive Compensation . . . . .	70
Item 12. Security Ownership of Certain Beneficial Owners and Management . . . . .	70
Item 13. Certain Relationships and Related Transactions . . . . .	70
Item 14. Principal Accounting Fees and Services . . . . .	70
<b>PART IV</b>	
Item 15. Exhibits, Financial Statement Schedules . . . . .	71
Signatures . . . . .	74

## FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the documents that we incorporate by reference, contains statements indicating expectations about future performance and other forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, 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 and results of our product development programs, including clinical testing, and the timing thereof; our corporate collaborations, including revenues that may be received from these 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. Any 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/autoimmune diseases, as well as for certain cancers and metabolic diseases. 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. We have product development programs in inflammatory/autoimmune diseases such as rheumatoid arthritis, thrombocytopenia and asthma, as well as in cancer.

During 2008 and the beginning of 2009, we:

- Announced the completed enrollment for the *TASKi2* clinical trial in December 2008 with 457 patients randomized. *TASKi2* is a clinical trial of R788 (fostamatinib disodium) in patients with rheumatoid arthritis (RA) who have previously failed to respond to methotrexate treatment. (February 2009)
- Announced that the *TASKi3* clinical trial of R788 is expected to complete enrollment in April 2009 with an anticipated enrollment of 195 patients with RA who have previously failed to respond to at least one marketed biologic treatment. (February 2009)
- Reported favorable results in QTc study for R788. The recently completed double-blind, double-dummy, randomized, positive and placebo controlled parallel study of the effects of R788 on

QT/QTc intervals in healthy subjects has confirmed that R788 does not elicit a QT/QTc signal. (February 2009)

- Reported favorable results of the Phase 2 clinical trial of R788 in patients with relapsed or refractory B-Cell non-Hodgkin’s lymphoma (NHL). The response rates were 55% and 22% from patients suffering from chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL) and diffuse large B-cell lymphoma (DLBCL), respectively. The results affirm that R788 is well-tolerated and shows therapeutic benefit in patients suffering from CLL/SLL and DLBCL. (December 2008)
- Completed a public offering of 5,000,000 shares of our common stock, which resulted in net proceeds of approximately \$127.5 million after deducting underwriting discounts and commissions and offering expenses. (February 2008)

**Strategy**

Our research team is focused on creating a portfolio of product candidates that can be developed into small molecule therapeutics for our own proprietary programs as well as with 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 companies 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 commercial success.

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

- *establish strategic collaborations with pharmaceutical and biotechnology companies to develop and market our product candidates;*
- *develop a diverse portfolio of drug candidates that address a variety of therapeutic indications or that represent significant market opportunities; and*
- *utilize our robust discovery engine to rapidly discover and validate new product candidates in a broad range of therapeutic indications.*

**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/autoimmune diseases, as well as for certain cancers and metabolic diseases.

<u>Pipeline</u>	<u>Current Stage</u>	<u>Status</u>
<b>R788—Oral Syk Inhibitor</b>		
RA .....	Phase 2b	Completed patient enrollment for <i>TASKi2</i> . <i>TASKi3</i> is expected to complete enrollment in April 2009. Results for <i>TASKi2</i> and <i>TASKi3</i> are expected to be available in July and August 2009, respectively.
ITP .....	Phase 2	Postponed expanding this clinical trial until we have further clarity on development priorities from a potential partner for R788.

<u>Pipeline</u>	<u>Current Stage</u>	<u>Status</u>
B-cell lymphoma . . . . .	Phase 2	Reported favorable results of the Phase 2 clinical trial in patients with relapsed or refractory B-Cell non-Hodgkin's lymphoma.
T-cell lymphoma . . . . .	Phase 2	Expect to initiate a Phase 2 clinical trial in the first quarter of 2009.
Lupus . . . . .		Postponed initiating a clinical trial for this indication until we have further clarity on development priorities from a potential partner for R788.
<b>R348—JAK3 Inhibitor</b>		
Psoriasis . . . . .	Phase 1	When we have a collaboration partner, we plan to focus on psoriasis and possible topical applications.
<b>R763—Oral Aurora Kinase Inhibitor</b>		
Oncology . . . . .	Phase 1—Merck Serono	Merck Serono has initiated three Phase 1 clinical trials for indications including solid tumors, hematological disorders and a combination study in advanced malignancies. We expect that Merck Serono will initiate a Phase 2 trial by the end of 2009.
<b>R343—Inhaled Syk Inhibitor</b>		
Asthma . . . . .	Phase 1—Pfizer	Pfizer completed a Phase 1a clinical trial of an inhaled formulation. We expect that Pfizer will initiate a Phase 1b allergen challenge trial in 2009.

**Clinical Stage Programs**

***Rheumatoid Arthritis***

*Disease background.* RA is an autoimmune disease characterized by chronic inflammation that affects multiple tissues, but typically produces its most pronounced symptoms in the joints. RA is often progressive and debilitating and affects nearly 2.1 million people in the United States.

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

*Orally-available Syk inhibitor program.* We intend to focus our RA program on the development of a safe oral DMARD that can be used early in the course of the disease, preventing its progression prior to major bone and cartilage destruction.

R788 is our lead product candidate. It has a novel mechanism of action, blocking immunoglobulin G, or IgG, receptor signaling in macrophages and B-cells. Previously, we studied R788 in a Phase 1, single center, double-blind, randomized, placebo-controlled, clinical trial evaluating the safety and pharmacokinetics of escalating single and multiple doses of R788. We also completed a Phase 2a clinical trial of R788 to evaluate its safety and pharmacokinetics in combination with methotrexate, a commonly prescribed treatment for RA. Results of this clinical trial suggested that there is not an adverse interaction between R788 and methotrexate.

In December 2007, we announced the results of a Phase 2a clinical trial of R788 in RA patients simultaneously receiving methotrexate, in which doses of 100 mg PO bid (orally, twice daily) and 150 mg PO bid of R788 produced statistically significant improvement in RA symptoms. The most common clinically meaningful adverse events noted in the clinical trial included dose-related neutropenia, mild elevations of liver function tests and gastrointestinal side effects. Dose reduction (to one-half the assigned dose by taking the drug once per day) was pre-specified in the protocol and contingent on neutrophil counts and/or liver function tests. Notably, a vast majority of the patients who had their doses reduced successfully completed the clinical trial with minimal safety issues.

In June 2008, we commenced two concurrent Phase 2b clinical trials of R788 in RA patients at a number of clinical research centers throughout the United States, Latin America, and Europe to evaluate the efficacy of R788 compared to placebo in distinct RA patient groups. The first Phase 2b clinical trial (*TASKi2*) is evaluating RA patients receiving 100 mg of R788 PO bid (orally, twice daily) or 150 mg of R788 PO qd (orally, once daily), compared with those receiving placebo, in a multi-center, randomized, double blind, placebo controlled, parallel dose study of R788 in patients who have failed to respond to methotrexate. The second Phase 2b clinical trial (*TASKi3*) is evaluating a group of RA patients receiving 100 mg of R788 PO bid, compared with a group receiving placebo, in a multi-center, randomized, double blind, placebo controlled, parallel dose study of R788 in patients who have failed at least one marketed biologic agent. The marketed biologic agents generally includes anti-tumor necrosis factor injectables commonly used to treat RA, but could include other therapies as well. The primary objectives for *TASKi2* and *TASKi3* are to measure the efficacy of R788 at 6 months and 3 months, respectively, as determined by ACR20 scores (American College of Rheumatology responder rates showing a minimum of 20% improvement in RA symptoms and pain). Secondary objectives include comparing higher ACR response rates (ACR 50 and ACR 70), as well as DAS28 rates (Disease Activity Score including a 28-joint inspection), in addition to various safety measures. *TASKi3* will also include measurement of changes in bone morphology using MRI scans as a secondary measure.

In December 2008, we completed enrollment for *TASKi2* with 457 patients randomized. The *TASKi3* clinical trial of R788 is expected to complete enrollment in April 2009 with an anticipated enrollment of 195 patients. The results from *TASKi2* and *TASKi3* are expected to be available in July and August 2009, respectively.

### ***Immune Thrombocytopenia Purpura***

*Disease background.* Immune thrombocytopenia purpura, or ITP, is a blood disorder in which the immune system attacks and destroys platelets in the blood resulting in an abnormally low platelet count, which can result in easy bruising, bleeding gums and internal bleeding. Approximately 200,000 people in the United States suffer from ITP. The majority of cases are in women, with 50% of the new cases found in children.

First line medical therapy for ITP consists primarily of steroids, which help prevent bleeding by decreasing the rate of platelet destruction. The current treatment options for chronic ITP have



potentially significant side effects and lack long-term effectiveness. When steroid therapy fails, the patient's spleen may need to be removed, which poses the risk of other significant complications. There is no consensus on the appropriate management for chronic ITP, but due to the fact that sustained remission is infrequent, new therapies are needed. Rigel is focused on the chronic form of ITP, targeting the underlying autoimmune cause of the disease.

*Orally-available Syk inhibitor program.* Platelet destruction from ITP is mediated by IgG signaling, and R788 is a potent inhibitor of IgG signaling. In preclinical studies, R788 was shown to improve thrombocytopenia in an ITP mouse model. We recently completed an exploratory Phase 2 clinical trial of R788 to evaluate its safety and initial efficacy in chronic ITP patients. In this clinical trial, R788 was orally administered in varying doses for 30 or more days and demonstrated that it can improve platelet counts in highly refractory patients. We have postponed expanding this clinical trial of R788 in ITP until we have further clarity on development priorities from a potential partner for R788.

### ***B-cell Lymphoma***

*Disease background.* Lymphoma is a large class of blood cancers that affect the lymphatic system, which is part of the immune system. In 2008, lymphoma affected an estimated 500,000 people in the United States, of which 347,000 suffered from non-Hodgkin's varieties of the disease. Diffuse large B-cell lymphoma is the most common type of non-Hodgkin's lymphoma and is generally categorized as aggressive, marked by rapidly growing tumors in the lymph nodes, spleen, liver, bone marrow and other organs.

A variety of treatment options exist, including chemotherapy and radiation, but the five-year survival rates for non-Hodgkin's lymphoma patients are only approximately 50%. For those who survive, recurrences of the disease are common, warranting additional and novel approaches to treatment of the lymphoma.

*Orally-available Syk inhibitor program.* Research has shown that over activity of the signaling enzyme spleen tyrosine kinase, or Syk, appears to have an essential role in the survival and proliferation of certain B-cell lymphoma cell lines, and that R788 can inhibit the growth of B-cell lymphoma driven by Syk over activity. In December 2008, we reported that R788 is well-tolerated by B-cell Lymphoma patients and shows therapeutic benefit in patients suffering from diffuse large B-Cell lymphoma (DLBCL) and chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL). A total of 68 patients received 200 mg PO bid (orally, twice daily) of R788 until disease progression occurred. Treatment response rates from patients suffering from chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL) and diffuse large B-cell lymphoma (DLBCL) were 55% and 22%, respectively. Response to treatment was evaluated using standard NHL response criteria (The Cheson Criteria). Treatment-related adverse events included cytopenias, fatigue, diarrhea/abdominal discomfort and hypertension. Most adverse events were mild to moderate and were reversible.

### ***T-cell Lymphoma***

*Disease background.* Approximately 12-15% of the non-Hodgkins lymphomas that are not classified as B-cell in origin are T-cell and natural killer (NK) cell in origin. Within these malignancies, two broad groups can be defined, the precursor or pre-thymic lymphomas (e.g. lymphoblastic lymphoma) and the post-thymic lymphomas or peripheral NK/T-cell lymphomas, or PTCLs. In the World Health Organization (WHO) Classification, the PTCLs can be further subdivided into predominantly leukemic, extranodal, and nodal types. Studies in recent years have confirmed that lymphomas of the T-cell phenotype have a poorer prognosis than do B-cell lymphomas.

To date, cyclophosphamide, adriamycin (hydroxydoxorubicin), vincristine (oncovin) and prednisone, or CHOP, or CHOP-like chemotherapy has constituted the most prevalent approach to the treatment of PTCLs. However, except for anaplastic lymphoma kinase, or ALK,-positive, anaplastic large cell

lymphoma, or ALCL, this approach has been disappointing both in terms of the response rate and the durability of response. Despite the initial promise of other novel approaches, the outlook for patients with PTCL remains grim, and there is clearly a need for additional novel approaches.

*Orally-available Syk inhibitor program.* Recent research has suggested that spleen tyrosine kinase (syk) may be important in the growth of some types of T-cell lymphomas. We plan to initiate a Phase 2 exploratory clinical trial in patients with PTCL. The clinical trial will be conducted in 2 stages. In the first stage, up to 19 patients will be enrolled in the clinical trial. In the second stage, up to 36 patients with PTCL will be enrolled. All patients will receive 200 mg of R788 PO bid for at least 8 weeks.

### ***Lupus***

*Orally-available Syk inhibitor program.* Preclinical studies have shown that R788 is highly effective in a murine model of lupus. The initiation of a clinical trial in Lupus patients has been postponed until we have further clarity on development priorities from a potential partner for R788.

### ***JAK3 Inhibitor in Psoriasis***

*Disease background.* We believe our janus kinase 3, or JAK3, inhibitor may be useful in treating psoriasis. Psoriasis is a lifelong autoimmune disease that affects approximately 7.5 million people in the United States and an estimated 125 million people worldwide. Approximately 10%-30% of patients with psoriasis also develop psoriatic arthritis, which causes pain, swelling and stiffness of the joints.

*JAK3 inhibitor program.* R348 is a potent and selective JAK3 inhibitor. JAK3 is a cytoplasmic tyrosine kinase that plays an important role in modulating cytokine signaling in T and B cells, as well as affecting lymphocyte differentiation and proliferation in a variety of autoimmune diseases. Moving forward, we plan to focus on psoriasis and possible topical applications of R348 in conjunction with a collaboration partner.

## **Research/Preclinical Programs**

We are conducting proprietary research in two broad disease areas: inflammation/immunology and metabolism. Within each disease area, we are investigating mechanisms of action as well as screening compounds against potential novel intracellular targets and optimizing those leads that appear to have the greatest potential.

Our most advanced program is the protein kinase C, or PKC, theta program in the area of immunology/inflammation. We expect to select a compound from the PKC theta program for preclinical development in 2009. We also plan to select another syk inhibitor compound to serve as a follow-on compound to R788. We expect to select this compound for preclinical development in late 2009. In addition, we plan to develop another selective JAK3 inhibitor compound for transplant rejection. We expect to select this new JAK3 inhibitor compound by the end of 2009.

## **Partnered Programs in Development**

### ***Oncology***

*Disease background.* Cancer is the second leading cause of death in the United States. More than one million people in the United States are diagnosed with cancer each year, and nearly half of all men and more than one-third of all women in the United States will develop cancer during their lifetimes.

*Aurora kinase inhibitor program.* Aurora kinase plays a central role in the cell division process, and the over-expression of aurora kinase can cause cells to quickly form an abnormal number of chromosomes. As such, aurora kinase is frequently associated with various solid tumor human cancers, such as cancers of the breast, bladder, colon, ovary, head and neck and pancreas. Increased knowledge of aurora kinase and its potential to regulate cell growth may be the basis for treating and even preventing some cancers.

We have identified R763/AS703569 as a lead compound in our aurora kinase inhibition program targeting cancer cell proliferation. R763/AS703569 is a potent, highly-selective, small-molecule inhibitor of aurora kinase. In October 2005, we signed a licensing agreement with Merck Serono that gave Merck Serono an exclusive license to develop and commercialize inhibitors in our aurora kinase program, including R763/AS703569. In November 2007, Merck Serono exercised its option to add Japan to the territories covered under the current aurora kinase collaboration with respect to R763/AS703569, resulting in a milestone payment to us of \$3.0 million. Under the agreement, Merck Serono is responsible for the further development and commercialization of R763/AS703569.

In September 2006, Merck Serono initiated a Phase 1, multi-center clinical trial to evaluate R763/AS703569 for the treatment of patients with refractory solid tumors. In February 2007, Merck Serono began an additional Phase 1 clinical trial evaluating R763/AS703569 on patients with hematological malignancies. In July 2007, Merck Serono initiated its third Phase 1 clinical trial, designed to determine the maximum tolerated dose, safety and dosing regimen of R763/AS703569 in combination with gemcitabine, a commonly prescribed chemotherapeutic agent administered by intravenous infusion. The clinical trial will evaluate two different treatment regimens in which R763/AS703569 will be given in sequence with the gemcitabine over 21-day cycles. As many as 72 patients with advanced malignancies, including pancreatic, ovarian, breast, non-small cell lung and colorectal, will be evaluated. We expect that Merck Serono will initiate a Phase 2 trial by the end of 2009.

## *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 antibodies, or 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.* 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 is focused on our preclinical small molecule compounds, which inhibit IgE receptor signaling in respiratory tract mast cells by blocking Syk, a novel drug target for respiratory diseases. Mast cells play important roles in both early and late phase allergic reactions, and Syk inhibitors could prevent both phases.

The collaboration is now centered on the development of R343. Pfizer has completed the Phase 1a clinical trial of an inhaled formulation of R343, which commenced in December 2007, resulting in a milestone payment of \$5.0 million to us by that time. We expect that Pfizer will initiate a Phase 1b allergen challenge trial in 2009.

## Corporate Collaborations

We conduct research and development programs independently and in connection with our corporate collaborators. We currently have collaborations with six major pharmaceutical/biotechnology companies.

These collaborations are:

- Janssen Pharmaceutica N.V., a division of Johnson & Johnson, relating to oncology therapeutics and diagnostics;
- Pfizer, Inc., one initiated in 1999 in immunology and the other in January 2005, relating to intrapulmonary asthma and allergy therapeutics;
- Novartis Pharma AG, or Novartis, with respect to four different programs relating to immunology, oncology and chronic bronchitis;
- Daiichi Pharmaceuticals Co., Ltd., or Daiichi, relating to oncology;
- Merck & Co., Inc., or Merck, also relating to oncology;
- Merck Serono, relating to our aurora kinase inhibitor program.

None of these collaborations currently provides us with regular research reimbursement. In all 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.

## 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. 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, or 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 investigative new drug, or 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 220 pending patent applications and over 120 issued patents in the United States that are owned by or exclusively licensed to us in our field, as well as pending corresponding foreign patent applications. 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.

## 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 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 potential drugs 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.

### **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 2008, 2007, and 2006.

### **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 U.S. Food and Drug Administration, or 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.

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. Additionally, we have no experience in working with our partners in conducting and managing the clinical trials necessary to obtain regulatory approval.

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, or 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, 2008, we had 181 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.

In February 2009, we announced that we have 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 is intended to maintain our emphasis on active preclinical and clinical programs, while conserving our resources. We are still assessing the restructuring and other charges associated with this measure, which are expected to be recorded in the first quarter of 2009.

## **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](http://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, or 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 Securities Exchange Act of 1934, as amended. 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 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.*

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

We have consumed substantial amounts of capital to date, and our operating expenditures are expected to increase over the next several years as we continue our research and development activities, including preclinical studies and clinical trials.

We believe that our existing capital resources will be sufficient to support our current and projected funding requirements through at least the next 12 months. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development of our product candidates and other research and development activities, including risks and uncertainties that could impact the rate of progress of our development activities, we are unable to estimate with certainty the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials and other research and development activities.

For the foreseeable future, our operations will require significant additional funding, in large part due to our research and development expenses, future preclinical and clinical-testing costs, and the absence of any revenues from product sales. The amount of future funds needed will depend largely on the timing and structure of potential future collaborations, including in particular with respect to R788. We anticipate that we will enter into a collaboration agreement with respect to R788 after the results of ongoing Phase 2b clinical trials of R788 are available, but we may not be able to do so on acceptable terms, or at all. Until we are able to generate a sufficient amount of product revenue, we expect to finance future cash needs through public and/or private equity offerings, 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. Recently, the credit markets and the financial services industry have been experiencing a period of unprecedented turmoil and upheaval characterized by the bankruptcy, failure, collapse or sale of various financial institutions and an unprecedented level of intervention from the United States federal government. These events have generally made equity and debt financing more difficult to obtain. As a result of these and other factors, 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 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 us or our collaborative partners or licensees;
- our ability to establish new collaborations and the terms thereof;
- the progress of research programs carried out by us;
- any changes in the breadth of our research and development programs;
- our ability to meet the milestones identified in our collaborative agreements that trigger payments;
- 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.**

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 have not been profitable and have incurred operating losses since we were incorporated in June 1996. The extent of our future losses and the timing of potential profitability are highly uncertain, and we may never achieve profitable operations. We incurred net losses of approximately \$132.3 million in 2008, \$74.3 million in 2007 and \$37.6 million in 2006. Currently, our revenues are generated solely from research milestone payments pursuant to our collaboration agreements and licenses and are insufficient to generate profitable operations. As of December 31, 2008, we had an accumulated deficit of approximately \$501.8 million. We expect to incur losses for at least the next several years and expect that these losses could increase as we expand our research and development activities and incur significant clinical and testing costs.

**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 four product compounds in the clinical testing stage: one with indications for RA, ITP, B-cell lymphoma and T-cell lymphoma, which is proprietary to our company;

one in safety testing and intended for psoriasis, which is proprietary to our company; one with six indications for oncology, which is subject to a collaboration agreement with Merck Serono; and one in safety 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, regulatory compliance, manufacturing, competition and costs and expenses that may exceed current estimates. For example, in our recently completed Phase 2a clinical trial for R788 in RA, the most common clinically meaningful adverse events noted in the clinical trial included dose-related neutropenia, mild elevations of liver function tests and gastrointestinal side effects. 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 R788 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 R788 relative to those drugs.

The results of preliminary studies do not necessarily predict clinical or commercial success, and larger later-stage clinical trials may fail to confirm the results observed in the preliminary studies. Our lead product candidate is in early development, having recently completed initial Phase 2 clinical trials in two indications. We are conducting additional Phase 2b trials, with larger numbers of patients, before proceeding into Phase 3 trials with R788 for RA. Furthermore, our Phase 2 clinical trial for ITP was conducted in highly refractory patients, as opposed to treatment-naïve patients. If efficacy is not demonstrated among treatment-naïve patients, any approved indication for ITP will be limited to a subset of the patient population. Finally, with respect to our own compounds in development, we have established anticipated timelines with respect to the initiation or completion 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.

**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.

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.

**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 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 study, delays from scale up, 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 approvals, our product development costs will increase. For example, we may need to make additional payments to third-party investigators and organizations to retain their services or we may need to pay recruitment incentives. If the delays are significant, our financial results and the commercial prospects for our product candidates will be harmed, and our ability to become profitable will be delayed. Moreover, these third-party investigators and organizations may also have relationships with other commercial entities, some of which may compete with us. If these third-party investigators and organizations assist our competitors at our expense, it could harm our competitive position.

**We lack the capability to manufacture compounds for 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 manufacturing capabilities or experience necessary to produce our product candidates, including R788. We rely on a single manufacturer for all of our clinical trials. We rely on manufacturers to produce and deliver all of the materials required for our preclinical and clinical efforts on a timely basis and to comply with applicable regulatory requirements, including the FDA's current Good Manufacturing Practices, or GMP. In addition, we rely on our suppliers to deliver sufficient quantities of materials produced under GMP conditions to enable us to conduct planned preclinical studies, clinical trials and, if possible, to bring products to market in a timely manner.

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 investigational new drug, or IND, applications and/or the initiation of clinical trials that we have currently planned.

Drug manufacturers are subject to ongoing periodic unannounced inspection by the FDA, the Drug Enforcement Agency, and other agencies to ensure strict compliance with GMP 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 obtain approval from the FDA or 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.

**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 our ability to enter into additional collaborative agreements with third parties, including in particular with respect to R788, and to maintain the agreements we currently have in place. 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, including R788, 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, most of our revenues have been related to the research 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 partially offset by corresponding research costs. Following the completion of the research phase of each collaborative agreement, additional revenues may come only from milestone payments and royalties, which may not be paid, if at all, until some time well into the future. The 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 Johnson &

Johnson, Novartis, Daiichi, Merck, Merck Serono and Pfizer. 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 stock.

Our business requires us to generate meaningful revenue from royalties and licensing agreements. To date, we have not received any revenue from royalties for the commercial sale of drugs, and we do not know when we will receive any such revenue, if at all. Likewise, we have not licensed any lead compounds or drug development candidates to third parties, and we do not know whether any such license will be entered into on acceptable terms in the future, if at all.

**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 in the future. We rely on these arrangements for not only financial resources, but also for expertise that we expect to need 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 such or additional third parties will dedicate sufficient resources or if any development or commercialization efforts by third parties will be successful. 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 ongoing research and development efforts at Rigel, 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.

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 ended in 2004. The research phase of our corporate collaboration agreement with Daiichi ended in 2005. In 2004, we signed a new corporate collaboration with Merck, and the research phase of this collaboration ended in May 2007. In 2005, we signed additional collaborations with Pfizer and Merck Serono. 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 expertise of our collaborative partners could adversely affect our business.

Conflicts also might arise with collaborative partners concerning proprietary rights to particular compounds. While our existing collaborative agreements typically provide that we retain milestone payments and royalty rights with respect to drugs developed from certain derivative compounds, any such payments or royalty rights may be at reduced rates, and disputes may arise over the application of derivative payment provisions to such drugs, and we may not be successful in such disputes.

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.

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

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

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

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

Our success will depend to a large part on our own, our licensees' and our licensors' ability to obtain and defend patents for each party's respective technologies and the compounds and other products, if any, resulting from the application of such technologies. We have over 220 pending patent applications and over 120 issued patents in the United States that are owned or exclusively licensed in our field as well as pending corresponding foreign patent applications. 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 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, then our ability to receive patent protection or protect our proprietary information will 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 also 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.

**The restructuring of our research programs could result in management distractions, operational disruptions and other difficulties.**

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. Employees whose positions were eliminated in connection with this reduction may seek future employment with our competitors. Although all

employees are required to sign a confidentiality agreement with us at the time of hire, we cannot assure you that the confidential nature of our proprietary information will be maintained in the course of such future employment. Any additional restructuring efforts could divert the attention of our management away from our operations, harm our reputation and increase our expenses. We cannot assure you that we will not undertake additional restructuring activities, that any of our restructuring efforts will be successful, or that we will be able to realize the cost savings and other anticipated benefits from our previous or future restructuring plans. In addition, if we continue to reduce our workforce, it may adversely impact our ability to continue to develop our product candidates.

**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.**

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

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

- must be conducted in conformance with the FDA's good clinical practices and other applicable regulations;
- must meet requirements for institutional review board oversight;
- must meet requirements for informed consent;
- are subject to continuing FDA 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 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, 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 associated with FDA approval described above and may also include additional risks.

**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 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 potential drugs 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;
- 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 are not currently aware of any specific causes for concern with respect to clinical liability claims. 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.

**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 flow and reported earnings.

**We have been named a defendant in a purported securities class action lawsuit. These, 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 stock offering. The lawsuit alleges violations of the Securities Act of 1933 and the Securities Exchange Act of 1934 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 R788. The plaintiff alleges that we failed to disclose facts related to the response rates of trial patients in Mexico compared to trial patients in the U.S., an increase in average blood pressure of trial patients treated with R788 and an increase in liver enzymes in trial patients treated with R788 compared to those treated with placebo. The plaintiff seeks damages, including rescission or rescissory damages for purchasers in the stock offering, an award of its costs and injunctive and/or equitable relief for purchasers of our common stock during the period between December 13, 2007 and October 27, 2008, including purchasers in 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. It is possible that additional suits will be filed, or allegations received from stockholders, with respect to these same matters and also naming us and/or our officers and directors as defendants.

We believe that we have meritorious defenses and intend to defend these lawsuits vigorously. These lawsuits and any other related lawsuits are subject to inherent uncertainties, and the actual cost will depend upon many unknown factors. The outcome of the litigation is necessarily uncertain, we could be forced to expend significant resources in the defense of these suits and we may not prevail. Monitoring and defending against legal actions is time-consuming for our management and detracts from our ability to fully focus our internal resources on our business activities. In addition, we may incur substantial legal fees and costs in connection with the litigation. We are not currently able to estimate the possible cost to us from these matters, as these lawsuits are currently at an early stage and we cannot be certain how long it may take to resolve these matters 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 these lawsuits. It is possible that we could, in the future, incur judgments or enter

into settlements of claims for monetary damages. A decision adverse to our interests on these actions could result in the payment of substantial damages, or possibly fines, and could have a material adverse effect on our cash flow, results of operations and financial position. In addition, the uncertainty of the currently pending litigation could lead to more volatility in our stock price.

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

The market prices for our securities and those 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 (i.e., studies, 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;
- 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
- 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.

**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 our February 2008 stock offering. The lawsuit alleges violations of the Securities Act of 1933 and the Securities Exchange Act of 1934 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 R788. The plaintiff seeks damages, including rescission or rescissory damages for purchasers in the stock offering, an award of its costs and injunctive and/or equitable relief for purchasers of our common stock during the period between December 13, 2007 and October 27, 2008, including purchasers in 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. It is possible that additional suits will be filed, or allegations received from stockholders, with respect to these same matters and also naming us and/or our officers and directors as defendants.

We believe that we have meritorious defenses and intend to defend these lawsuits vigorously. These lawsuits and any other related lawsuits are subject to inherent uncertainties, and the actual cost will depend upon many unknown factors. The outcome of the litigation is necessarily uncertain, we could be forced to expend significant resources in the defense of these lawsuits and we may not prevail.

**Item 4. Submission of Matters to a Vote of Security Holders**

None.



## PART II

### Item 5. Market for the Registrant's Common Equity and Related Stockholder Matters

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:

	<u>High</u>	<u>Low</u>
<b>Year Ended December 31, 2007</b>		
First Quarter . . . . .	\$12.14	\$ 9.31
Second Quarter . . . . .	\$12.46	\$ 8.75
Third Quarter . . . . .	\$10.25	\$ 7.50
Fourth Quarter . . . . .	\$31.00	\$ 6.64
<b>Year Ended December 31, 2008</b>		
First Quarter . . . . .	\$29.25	\$14.94
Second Quarter . . . . .	\$24.45	\$17.36
Third Quarter . . . . .	\$27.18	\$21.03
Fourth Quarter . . . . .	\$23.61	\$ 4.76

On February 20, 2009, the last reported sale price for our common stock on the Nasdaq Global Market was \$5.88 per share.

#### Holders

As of February 20, 2009, there were approximately 127 stockholders of record of our common stock.

#### Dividends

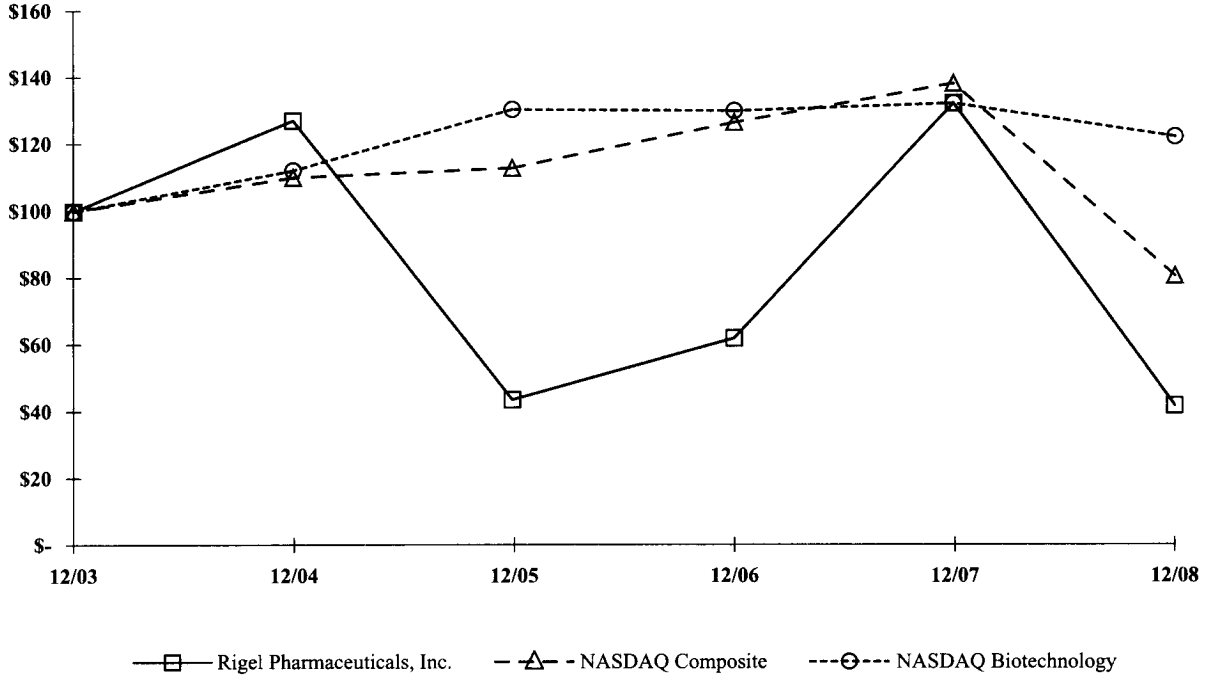
We have not paid any cash dividends on our common stock and currently do not plan to pay any cash dividends in the foreseeable future.

#### Performance Measurement Comparison

The graph below shows the cumulative total stockholder return of an investment of \$100 (and the reinvestment of any dividends thereafter) on December 31, 2003 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 12/31/03 in stock or index-including reinvestment of dividends at fiscal year ending December 31.

**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,				
	2008	2007	2006	2005	2004
	(in thousands, except per share amounts)				
<b>Statements of Operations Data:</b>					
Contract revenues from collaborations . . . . .	\$ —	\$ 12,600	\$ 33,473	\$ 16,526	\$ 4,733
Costs and expenses:					
Research and development . . . . .	109,670	70,364	56,968	52,038	48,523
General and administrative . . . . .	27,044	21,763	19,552	12,410	13,077
	<u>136,714</u>	<u>92,127</u>	<u>76,520</u>	<u>64,448</u>	<u>61,600</u>
Loss from operations . . . . .	(136,714)	(79,527)	(43,047)	(47,922)	(56,867)
Loss on disposal/sale of property and equipment . . . . .	—	—	—	—	(30)
Interest income . . . . .	4,439	5,476	5,700	2,942	966
Interest expense . . . . .	(160)	(221)	(290)	(276)	(324)
Loss before income taxes . . . . .	(132,435)	(74,272)	(37,637)	(45,256)	(56,255)
Income tax benefit . . . . .	89	—	—	—	—
Net loss . . . . .	<u>(132,346)</u>	<u>(74,272)</u>	<u>(37,637)</u>	<u>(45,256)</u>	<u>(56,255)</u>
Net loss per share, basic and diluted . . . . .	\$ (3.67)	\$ (2.57)	\$ (1.51)	\$ (2.07)	\$ (3.12)
Weighted average shares used in computing net loss per share, basic and diluted . . . . .	36,025	28,936	24,936	21,857	18,053

	As of December 31,				
	2008	2007	2006	2005	2004
	(in thousands)				
<b>Balance Sheet Data:</b>					
Cash, cash equivalents and available-for-sale securities . . . . .	\$ 134,477	\$ 108,296	\$ 104,471	\$ 138,196	\$ 71,427
Working capital . . . . .	113,936	95,018	96,776	118,949	62,821
Total assets . . . . .	143,858	115,789	113,240	147,668	78,822
Capital lease obligations, less current portion . . . . .	2,053	784	1,082	1,132	781
Deferred stock compensation . . . . .	—	—	—	(26)	(56)
Accumulated deficit . . . . .	(501,777)	(369,431)	(295,159)	(257,522)	(212,266)
Total stockholders' equity . . . . .	104,165	82,182	87,229	108,588	52,301

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

## Item 7. Management’s Discussion and 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/autoimmune diseases, as well as for certain cancers and metabolic diseases. 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. We have product development programs in inflammatory/autoimmune diseases such as rheumatoid arthritis, thrombocytopenia and asthma, as well as in cancer.

We have not been profitable and have incurred operating losses since we were incorporated in June 1996. The extent of our future losses and the timing of potential profitability are highly uncertain, and we may never achieve profitable operations. We incurred net losses of approximately \$132.3 million in 2008, \$74.3 million in 2007 and \$37.6 million in 2006. Currently, our revenues are generated solely from research milestone payments pursuant to our collaboration agreements and licenses and are insufficient to generate profitable operations. In addition, we have funded our operations primarily through private and public offerings of our common stock. As of December 31, 2008, we had an accumulated deficit of approximately \$501.8 million. We expect to incur losses for at least the next several years and expect that these losses could increase as we expand our research and development activities and incur significant clinical and testing costs. Until we are able to generate a sufficient amount of product revenue, 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.

For the foreseeable future, our operations will require significant additional funding, in large part due to our research and development expenses, future preclinical and clinical-testing costs, and the absence of any revenues from product sales. The amount of future funds needed will depend largely on the timing and structure of potential future collaborations. 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 continue to pursue a collaboration partner for our lead product candidate, R788, prior to initiating Phase 3 clinical trials. We have engaged in discussions with various parties regarding such a partnership. At the present time, while we have parties who have indicated an interest in entering into a partnership for R788, we believe we will be able to negotiate a more attractive arrangement for us and our stockholders once we have the results from the two Phase 2b clinical trials of R788, TASKi2 and TASKi3. The results from these two clinical trials are expected to be available in July and August 2009, respectively.

We will have to raise additional capital if we do not identify a collaboration partner for R788. Recently, the credit markets and the financial services industry have been experiencing a period of unprecedented turmoil and upheaval characterized by the bankruptcy, failure, collapse or sale of various financial institutions and an unprecedented level of intervention from the United States federal government. These events have generally made equity and debt financing more difficult to obtain. As a result of these and other factors, we do not know whether additional financing will be available when needed, or that, if available, we will obtain financing on reasonable terms.

We believe that our existing capital resources will be sufficient to support our current and projected funding requirements through at least the next 12 months. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development of our product candidates and other research and development activities, including risks and uncertainties that could impact the rate of progress of our development activities, we are unable to estimate with certainty the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials and other research and development activities.

### **Corporate Collaborations**

We conduct research and development programs independently and in connection with our corporate collaborations. We currently have collaborations with six major pharmaceutical/biotechnology companies. These collaborations include a collaboration with Janssen Pharmaceutica N.V., a division of

Johnson & Johnson, relating to oncology therapeutics and diagnostics; two collaborations with Pfizer, one initiated in 1999 in immunology and the other in January 2005, relating to intrapulmonary asthma and allergy therapeutics; a collaboration with Novartis Pharma AG, or Novartis, with respect to four different programs relating to immunology, oncology and chronic bronchitis; a collaboration with Daiichi Pharmaceuticals Co., Ltd., or Daiichi, relating to oncology; a collaboration with Merck & Co., Inc., or Merck, also relating to oncology; and a collaboration with Merck Serono, relating to our aurora kinase inhibitor program. None of these collaborations currently provides us with regular research reimbursement. In all 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.

### **Recent Developments**

In February 2009, we announced that we have 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 is intended to maintain our emphasis on active preclinical and clinical programs, while conserving our resources. We are still assessing the restructuring and other charges associated with this measure, which are expected to be recorded in the first quarter of 2009.

### **Equity Financings**

During the first quarter of 2008, we completed an underwritten public offering in which we sold 5,000,000 shares of our common stock at a price to the public of \$27.00 per share. We received net proceeds of approximately \$127.5 million after deducting underwriting discounts and commissions and offering expenses.

### **Critical Accounting Policies and the Use of Estimates**

Our discussion and analysis of our financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. 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 terms of the research collaborations (i.e. amortization of upfront fees and certain milestone payments), investments, stock compensation, impairment issues, the estimated useful life of assets 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, 2008 as compared to those previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2007. 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 recognize revenue from our collaboration arrangements. Our revenue arrangements with multiple elements are evaluated under Emerging Issues Task Force, or EITF, No. 00-21, "*Revenue Arrangements with Multiple Deliverables*," 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.

Revenue related to collaborative research with our corporate collaborators is recognized as research services are performed over the related development periods for each contract. Under these agreements, we are required to perform research and development activities as specified in the applicable 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, except for the Merck collaboration signed in November 2004 related to ubiquitin ligases, approximate or exceed the revenue recognized under such agreements over the term of the respective agreements. For the Merck collaboration, we recognized a pro-rata portion of the invoiced amounts for funding of our research scientists based on the headcount dedicated to the project. When the research portion of the collaboration ended in May 2007, we recognized the full amount of the deferred revenue related to the contract because we had no further obligations under the Merck collaboration. It is our policy to recognize revenue based on our level of effort expended, and that revenue recognized will not exceed amounts billable under the arrangement.

Revenues associated with at-risk milestones pursuant to collaborative agreements are recognized based upon the achievement of the milestones as set forth in the applicable agreement.

#### ***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, 2008, 2007 and 2006 was comprised as follows:

	Years Ended December 31,			Aggregate Change	
	2008	2007	2006	2008 from 2007	2007 from 2006
	(in thousands)				
<b>Stock-based compensation expense from:</b>					
<i>Officer, director and employee options</i> . . . . .	\$23,565	\$11,478	\$12,312	\$12,087	\$(834)
<i>Consultant options</i> . . . . .	194	209	267	(15)	(58)
<b>Total</b> . . . . .	<u>\$23,759</u>	<u>\$11,687</u>	<u>\$12,579</u>	<u>\$12,072</u>	<u>\$(892)</u>

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, or ESPP. The benefits provided under these plans are stock-based payments subject to the provisions of Statement of Financial Accounting Standard, or SFAS, No. 123(R), "Share-Based Payment (Revised 2004)," or SFAS No. 123(R). Effective January 1, 2006, we adopted the provisions of SFAS No. 123(R) using the modified prospective application transition method. Under this method, the stock-based compensation costs recognized beginning January 1, 2006 include compensation costs for (i) all stock-based payments granted prior to, but not vested as of January 1, 2006, based on the grant

date fair value originally estimated in accordance with the provisions of SFAS No. 123, "*Accounting for Stock-Based Compensation*," or SFAS No. 123, and (ii) all stock-based payments granted on or after January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123(R) and Staff Accounting Bulletin No. 107, or SAB 107. For awards granted on or after, January 1, 2006, we adopted the use of the straight-line attribution method over the requisite service period for the entire award. In addition, pursuant to SFAS No. 123(R), 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.

In January 2008, we granted 1,305,691 shares of stock options to our employees. Due to a higher stock price and volatility rate on the grant date, the valuation for these stock options was approximately \$24.1 million. The increase of stock-based compensation expense in 2008 was mainly due to the amortization of expense associated with the January 2008 grant.

We also record charges associated with options granted to consultants reflecting the fair value valuation and periodic fair value re-measurement of outstanding consultant options under EITF No. 96-18, "*Accounting for Equity Instruments That are Issued to Other Employees for Acquiring, or in Conjunction with Selling, Goods or Services*," or EITF 96-18. 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. For consultant options granted on or after January 1, 2006, we amortized stock-based compensation using a straight-line attribution method consistent with the method used for employees and with the attribution election we made upon adoption of SFAS No. 123(R). For options granted prior to January 1, 2006, we used the accelerated method for expensing stock-based compensation, which was the method we used prior to adoption of SFAS No. 123(R). As of September 30, 2008, all of our outstanding consultant options were fully vested and the related stock-based compensation expenses were fully recognized.

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

#### ***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 completed and 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 the third parties are expensed at the time of purchase. Many of our estimates are based significantly or in part on information provided by the 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, 2008, 2007 and 2006

### Revenues

	Years Ended December 31,			Aggregate Change	
	2008	2007	2006	2008 from 2007	2007 from 2006
	(in thousands)				
<i>Contract revenues from collaborations</i> . . . . .	\$ —	\$12,600	\$33,473	\$(12,600)	\$(20,873)

Revenues by collaborator were:

	Years Ended December 31,			Aggregate Change	
	2008	2007	2006	2008 from 2007	2007 from 2006
	(in thousands)				
<i>Pfizer</i> . . . . .	\$ —	\$ 5,759	\$10,000	\$(5,759)	\$(4,241)
<i>Merck</i> . . . . .	—	3,841	7,946	(3,841)	(4,105)
<i>Merck Serono</i> . . . . .	—	3,000	15,527	(3,000)	(12,527)
<i>Total</i> . . . . .	\$ —	\$12,600	\$33,473	\$(12,600)	\$(20,873)

There were no contract revenues reported during the year ended December 31, 2008 because there was no milestone triggering activity in 2008 and the research portion of the Merck collaboration ended in May 2007. Contract revenues from collaborations in 2007 consisted primarily of a \$5.0 million milestone payment from Pfizer, a \$3.0 million milestone payment from Merck Serono and \$3.8 million in full-time equivalent, or FTE, and license revenue from Merck. The decrease in revenues in 2007, as compared to the similar period in 2006, was primarily due to the recognition of milestone payments totaling \$8.0 million and the full amortization of an upfront payment of \$7.5 million from Merck Serono, each in 2006. Contract revenues from collaborations in 2007 and 2006 consisted primarily of milestone payments, amortization of upfront fees, and research support. We had no deferred revenue as of December 31, 2008. Our potential future revenues may include certain milestone payments from our current collaboration partners or new collaboration partners we enter into agreements with in the future.

### Research and Development

	Years Ended December 31,			Aggregate Change	
	2008	2007	2006	2008 from 2007	2007 from 2006
	(in thousands)				
<i>Research and development expenses</i> . . . . .	\$109,670	\$70,364	\$56,968	\$39,306	\$13,396
<i>Stock-based compensation expense included in research and development expenses</i> . . .	\$ 12,272	\$ 5,519	\$ 6,515	\$ 6,753	\$ (996)

The increase in research and development expenses for the year ended December 31, 2008, compared to the same period in 2007, was primarily due to an increase in clinical costs, as well as stock-based compensation expense as discussed under “Stock-Based Compensation” above, partially offset by the decrease in bonus expense in 2008 as we will not pay any bonuses for 2008. The increase in clinical costs was primarily attributable to increased costs associated with our two Phase 2b clinical trials (*TASKi2* and *TASKi3*), as well as the related extension trials in RA patients and manufacturing R788 material to be used in these clinical trials. The increase in research and development expenses in 2007, as compared to the similar period in 2006, was due to an increase in clinical costs and personnel costs, offset by a decrease in stock-based compensation expense, as discussed under “Stock-Based Compensation” of this Annual Report on Form 10-K. The increase in clinical costs was primarily



attributable to costs associated with our Phase 2a clinical trials of R788 in RA and our Phase 2 clinical trials of R788 in ITP and B-cell lymphoma. The increase in personnel costs was attributable to a company-wide bonus program implemented in 2007.

The scope and magnitude of future research and development expenses 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. 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. Our research and development expenditures currently include costs for scientific personnel, supplies, equipment, consultants, sponsored research, allocated facility costs, costs related to preclinical and clinical trials, and stock-based compensation.

*General and Administrative Expenses*

	Years Ended December 31,			Aggregate Change	
	2008	2007	2006	2008 from 2007	2007 from 2006
	(in thousands)				
<i>General and administrative expenses</i> . . . . .	\$27,044	\$21,763	\$19,552	\$5,281	\$2,211
<i>Stock-based compensation expense included in general and administrative expenses</i> . . . . .	\$11,487	\$ 6,168	\$ 6,064	\$5,319	\$ 104

The increase in general and administrative expenses for the year ended December 31, 2008, as compared to the same period in 2007, was primarily attributable to an increase in stock-based compensation expense, as discussed under “Stock-Based Compensation” above, as well as an increase in legal costs associated with the expansion of our patent portfolio, partially offset by the decrease in bonus expense in 2008 as we will not pay any bonuses for 2008. The increase in general and administrative expenses in 2007, as compared to the similar period in 2006, was primarily attributable to an increase in personnel costs due to a new company-wide bonus program implemented in 2007, as well as an increase in legal costs associated with the expansion of our patent portfolio. Due to the purported securities class action lawsuit recently filed against us, we expect that our legal expenses will increase in 2009 as we will vigorously defend the lawsuit.

*Interest income*

	Years Ended December 31,			Aggregate Change	
	2008	2007	2006	2008 from 2007	2007 from 2006
	(in thousands)				
<i>Interest income</i> . . . . .	\$4,439	\$5,476	\$5,700	\$(1,037)	\$(224)

Interest income results from our interest-bearing cash and investment balances. The decrease in interest income for the year ended December 31, 2008, as compared to the same period in 2007, was due to lower interest rates earned on our investments in 2008. Interest income was relatively flat from 2006 to 2007.

*Interest expense*

	Years Ended December 31,			Aggregate Change	
	2008	2007	2006	2008 from 2007	2007 from 2006
	(in thousands)				
<i>Interest expense</i> . . . . .	\$(160)	\$(221)	\$(290)	\$61	\$69

Interest expense results from our capital lease obligations associated with fixed asset acquisitions. The decrease in interest expense for the year ended December 31, 2008, as compared to the same period in 2007, was due to lower interest rates on capital lease obligations outstanding during those periods. The decrease in interest expense in 2007, as compared to 2006, was due to the decrease in capital lease obligations outstanding during those periods.

*Income tax benefit*

	Years Ended December 31,			Aggregate Change	
	2008	2007	2006	2008 from 2007	2007 from 2006
	(in thousands)				
<i>Income tax benefit</i> . . . . .	\$89	\$—	\$—	\$89	\$—

Income tax benefit in 2008 results from our federal refundable credit calculated based on fixed assets placed into service from April 1, 2008 to December 31, 2008, in accordance with the provisions of the Housing and Economic Recovery Act of 2008.

**Recent Accounting Pronouncements**

On June 25, 2008, the Financial Accounting Standards Board, or FASB, ratified the consensus reached by the EITF on EITF Issue No. 07-5 “*Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity’s Own Stock*”, or EITF 07-5. EITF 07-5 provides guidance on how to determine whether certain instruments or features were indexed to the company’s own stock. EITF 07-5 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. We evaluated the impact of adopting EITF 07-5 and concluded the adoption will have no material effect on our financial statements.

On December 12, 2007, the FASB ratified the consensus reached by the EITF on EITF Issue No. 07-1, “*Accounting for Collaborative Arrangements*,” or EITF 07-1. EITF 07-1 defines collaborative arrangements and establishes reporting requirements for transactions between participants in a collaborative arrangement and between participants in the arrangement and third parties. EITF 07-1 is effective for financial statements issued for fiscal years beginning after December 15, 2008 and will be applied retrospectively to all prior periods presented for all collaborative arrangements existing as of the effective date. We are evaluating the impact of adopting EITF 07-1 on our financial statements and can not estimate the impact of adoption at this time.

In February 2007, the FASB issued SFAS No. 159, “*The Fair Value Option for Financial Assets and Financial Liabilities-Including an Amendment of FASB Statement No. 115*.” SFAS No. 159 permits entities to choose to measure financial instruments and certain other items at fair value. Entities that elect the fair value option will report unrealized gains and losses in earnings at each subsequent reporting date. The fair value option may be elected on an instrument-by-instrument basis, with few exceptions. SFAS No. 159 also establishes presentation and disclosure requirements to facilitate comparisons between companies that choose different measurement attributes for similar assets and liabilities. We adopted SFAS No. 159 on January 1, 2008, but did not elect the fair value option to measure eligible items. Accordingly, this statement had no effect on our financial statements.

**Liquidity and Capital Resources**

**Cash Requirements**

We have financed our operations from inception primarily through sales of equity securities, contract payments under our collaboration agreements and equipment financing arrangements. We have consumed substantial amounts of capital to date, and our operating expenditures are expected to

increase over the next several years, in large part due to our research and development expenses, future preclinical and clinical testing costs and the absence of any revenues from product sales.

In the first quarter of 2008, we completed a public offering in which we sold 5,000,000 shares of our common stock at a price of \$27.00 per share. We received net proceeds of approximately \$127.5 million after deducting underwriting discounts and commissions and other offering expenses.

As of December 31, 2008, we had approximately \$134.5 million in cash, cash equivalents and available-for-sale securities, as compared to approximately \$108.3 million as of December 31, 2007, an increase of approximately \$26.2 million. The increase was primarily attributable to net proceeds from our public offering in the first quarter of 2008, offset by operating spending for the twelve months ended December 31, 2008. We believe that our existing capital resources will be sufficient to support our current and projected funding requirements through at least the next 12 months. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development of our product candidates and other research and development activities, including risks and uncertainties that could impact the rate of progress of our development activities, we are unable to estimate with certainty the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials and other research and development activities.

Our operations will require significant additional funding for the foreseeable future. The amount of future funds needed will depend largely on the timing and structure of potential future collaborations. Until we are able to generate a sufficient amount of product revenue, we expect to finance future cash needs through public and/or private equity offerings, 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. Recently, the credit markets and the financial services industry have been experiencing a period of unprecedented turmoil and upheaval characterized by the bankruptcy, failure, collapse or sale of various financial institutions and an unprecedented level of intervention from the United States federal government. These events have generally made equity and debt financing more difficult to obtain. As a result of these and other factors, we do not know whether additional financing will be available when needed, or that, if available, we will be able to 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 collaboration and licensing arrangements, we may be required to relinquish some of our rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us.

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

- the 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;
- our ability to establish new collaborations and the terms thereof;
- the progress of research programs carried out by us;
- any changes in the breadth of our research and development programs;
- our ability to meet the milestones identified in our collaborative agreements that trigger payments;

- 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 or development programs, to lose rights under existing licenses or to relinquish greater or all rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise choose or may adversely affect our ability to operate as a going concern. For the twelve months ended December 31, 2008 and 2007, we maintained an investment portfolio primarily in money market funds, U. S. treasury bills, government-sponsored enterprise securities, and corporate bonds and commercial paper. Cash in excess of immediate requirements is invested with regard to liquidity and capital preservation. Wherever possible, we seek to minimize the potential effects of concentration and degrees of risk.

#### Cash Flows from Operating, Investing and Financing Activities

	Years Ended December 31,		
	2008	2007	2006
	(in thousands)		
Net cash provided by (used in):			
Operating activities . . . . .	\$(103,518)	\$(52,207)	\$(35,836)
Investing activities . . . . .	(26,970)	(7,793)	3,948
Financing activities . . . . .	131,990	56,776	2,836
Net increase (decrease) in cash and cash equivalents . . . . .	<u>\$ 1,502</u>	<u>\$ (3,224)</u>	<u>\$(29,052)</u>

Net cash used in operating activities was \$103.5 million in 2008 compared to \$52.2 million and \$35.8 million in 2007 and 2006, respectively. The continued increase in net cash used in operating activities was primarily due to the increase in payments made as we continue to expand our research and development activities. The timing of cash requirements may vary from period to period depending on our research and development activities, including our planned preclinical and clinical trials, and future requirements to establish commercial capabilities for any products that we may develop.

Net cash used in investing activities was \$26.9 million in 2008 and \$7.8 million in 2007. Net cash provided by investing activities in 2006 was \$3.9 million. The increase in net cash used in investing activities in 2008 compared with 2007 related primarily to purchases of short-term investments, partially offset by maturities of short-term investments. In 2006, maturities of available-for-sale securities were higher than purchases of available-for-sale securities resulting in cash provided by investing activities. Capital expenditures were \$2.5 million in 2008 compared to \$933,000 in 2007 and \$913,000 in 2006.

Net cash provided by financing activities was \$132.0 million in 2008 compared to \$56.8 million and \$2.8 million in 2007 and 2006, respectively. The increases in net cash provided by financing activities in 2008 and 2007 were mainly due to the public offerings we completed in 2008 and 2007. We did not have any public offerings in 2006. In the first quarter of 2008, we completed a public offering in which

we received net proceeds of approximately \$127.5 million. In the second quarter of 2007, we completed a public offering in which we received net proceeds of approximately \$52.3 million. Proceeds from capital lease financing were \$2.9 million in 2008 compared to \$918,000 and \$1.4 million in 2007 and 2006, respectively. Payments on capital lease obligations for 2008, 2007 and 2006 was \$1.2 million, \$1.5 million and \$1.4 million, respectively.

#### Off-Balance Sheet Arrangements

We have no contractual arrangements that create potential material risk for us and are not recognized in our consolidated balance sheets.

#### Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2008, which only consists of capital lease and facility lease obligations (in thousands):

	<u>Total</u>	<u>Less than 1 year</u>	<u>1-3 years</u>	<u>3-5 years</u>	<u>More than 5 years</u>
Capital lease obligations(1) . . . . .	\$ 3,673	\$ 1,504	\$ 2,124	\$ 45	\$ —
Facilities lease . . . . .	137,357	16,481	29,399	29,163	62,314
Total . . . . .	<u>\$141,030</u>	<u>\$17,985</u>	<u>\$31,523</u>	<u>\$29,208</u>	<u>\$62,314</u>

(1) As of December 31, 2008, we had \$3.7 million in capital lease obligations, including principal and interest, associated with our equipment additions. All existing capital lease agreements as of December 31, 2008 are secured by the equipment financed, bearing interest at rates in a range of 4.99% to 10.85% and are due in monthly installments through 2012.

#### Item 7A. Quantitative and Qualitative Disclosures about Market Risk

The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. Some of the securities in which we invest may have market risk. This means that a change in prevailing interest rates may cause the fair value amount of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the prevailing interest rate later rises, the market value amount of our investment will decline. To minimize this risk in the future, we intend to maintain our portfolio of cash equivalents and available-for-sale securities in a variety of securities, including money market funds and government and non-government debt securities. In 2008, 2007 and 2006, we maintained an investment portfolio primarily in money market funds, U. S. treasury bills, government-sponsored enterprise securities, and corporate bonds and commercial paper. Due to the primarily short-term nature of these investments, we believe we do not have a material exposure to interest rate risk arising from our investments. In addition, we believe we have no incremental or new risk related to recent credit market volatility. Therefore, no quantitative tabular disclosure is provided.

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

**Item 8. Financial Statements and Supplementary Data**

**INDEX TO FINANCIAL STATEMENTS  
Rigel Pharmaceuticals, Inc.**

	<u>Page</u>
Report of Independent Registered Public Accounting Firm .....	43
Balance Sheets .....	44
Statements of Operations .....	45
Statement of Stockholders' Equity .....	46
Statements of Cash Flows .....	47
Notes to Financial Statements .....	48

## **Report of Independent Registered Public Accounting Firm**

The Board of Directors and Stockholders  
Rigel Pharmaceuticals, Inc.

We have audited the accompanying balance sheets of Rigel Pharmaceuticals, Inc. as of December 31, 2008 and 2007, and the related statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2008. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Rigel Pharmaceuticals, Inc. at December 31, 2008 and 2007, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Rigel Pharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 24, 2009 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

Palo Alto, California  
February 24, 2009

**RIGEL PHARMACEUTICALS, INC.**  
**BALANCE SHEETS**  
(In thousands, except share and per share amounts)

	December 31,	
	2008	2007
<b>Assets</b>		
Current assets:		
Cash and cash equivalents . . . . .	\$ 46,005	\$ 44,503
Available-for-sale securities . . . . .	88,472	63,793
Prepaid expenses and other current assets . . . . .	3,610	2,834
Total current assets . . . . .	138,087	111,130
Property and equipment, net . . . . .	3,567	2,560
Other assets . . . . .	2,204	2,099
	\$ 143,858	\$ 115,789
 <b>Liabilities and stockholders' equity</b>		
Current liabilities:		
Accounts payable . . . . .	\$ 5,984	\$ 4,320
Accrued compensation . . . . .	1,625	8,133
Other accrued liabilities . . . . .	12,029	2,031
Deferred rent . . . . .	3,174	638
Capital lease obligations . . . . .	1,339	990
Total current liabilities . . . . .	24,151	16,112
Long-term portion of capital lease obligations . . . . .	2,053	784
Long-term portion of deferred rent . . . . .	13,311	16,486
Other long-term liabilities . . . . .	178	225
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value; 10,000,000 shares authorized; none issued and outstanding as of December 31, 2008 and 2007 . . . . .	—	—
Common stock, \$0.001 par value; 100,000,000 shares authorized; 36,646,397 and 31,381,774 shares issued and outstanding on December 31, 2008 and 2007, respectively . . . . .	37	31
Additional paid-in capital . . . . .	605,509	451,384
Accumulated other comprehensive income . . . . .	396	198
Accumulated deficit . . . . .	(501,777)	(369,431)
Total stockholders' equity . . . . .	104,165	82,182
	\$ 143,858	\$ 115,789

See accompanying notes.



**RIGEL PHARMACEUTICALS, INC.**  
**STATEMENTS OF OPERATIONS**  
(In thousands, except per share amounts)

	<u>Years Ended December 31,</u>		
	<u>2008</u>	<u>2007</u>	<u>2006</u>
Contract revenues from collaborations .....	\$ —	\$ 12,600	\$ 33,473
Costs and expenses:			
Research and development .....	109,670	70,364	56,968
General and administrative .....	27,044	21,763	19,552
	<u>136,714</u>	<u>92,127</u>	<u>76,520</u>
Loss from operations .....	(136,714)	(79,527)	(43,047)
Interest income .....	4,439	5,476	5,700
Interest expense .....	(160)	(221)	(290)
Loss before income taxes .....	(132,435)	(74,272)	(37,637)
Income tax benefit .....	89	—	—
Net loss .....	<u>\$(132,346)</u>	<u>\$(74,272)</u>	<u>\$(37,637)</u>
Net loss per share, basic and diluted .....	<u>\$ (3.67)</u>	<u>\$ (2.57)</u>	<u>\$ (1.51)</u>
Weighted average shares used in computing net loss per share, basic and diluted .....	<u>36,025</u>	<u>28,936</u>	<u>24,936</u>

See accompanying notes.

**RIGEL PHARMACEUTICALS, INC.**  
**STATEMENTS OF STOCKHOLDERS' EQUITY**  
(In thousands, except share and per share amounts)

	Common Stock		Additional Paid-in Capital	Deferred Stock Compensation	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount					
Balance at December 31, 2005 . . .	24,814,671	\$25	\$366,203	\$(26)	\$(92)	\$(257,522)	\$ 108,588
Net loss . . . . .	—	—	—	—	—	(37,637)	(37,637)
Change in unrealized gain (loss) on available-for-sale securities . . . . .	—	—	—	—	105	—	105
Comprehensive loss . . . . .							(37,532)
Issuance of common stock upon exercise of options and participation in Purchase Plan .	366,016	—	2,793	—	—	—	2,793
Stock compensation expense . . .	—	—	12,579	—	—	—	12,579
Reversal of deferred compensation expense balance .	—	—	(26)	26	—	—	—
Warrants issued with lease amendment 3 . . . . .	—	—	801	—	—	—	801
Balance at December 31, 2006 . . .	<u>25,180,687</u>	<u>25</u>	<u>382,350</u>	<u>—</u>	<u>13</u>	<u>(295,159)</u>	<u>87,229</u>
Net loss . . . . .	—	—	—	—	—	(74,272)	(74,272)
Change in unrealized gain on available-for-sale securities . .	—	—	—	—	185	—	185
Comprehensive loss . . . . .							(74,087)
Issuance of common stock at \$9.75 per share for cash, net of issuance costs . . . . .	5,750,000	6	52,330	—	—	—	52,336
Issuance of common stock upon exercise of options and participation in Purchase Plan .	451,087	—	5,017	—	—	—	5,017
Stock compensation expense . . .	—	—	11,687	—	—	—	11,687
Balance at December 31, 2007 . . .	<u>31,381,774</u>	<u>31</u>	<u>451,384</u>	<u>—</u>	<u>198</u>	<u>(369,431)</u>	<u>82,182</u>
Net loss . . . . .	—	—	—	—	—	(132,346)	(132,346)
Change in unrealized gain on available-for-sale securities . .	—	—	—	—	198	—	198
Comprehensive loss . . . . .							(132,148)
Issuance of common stock at \$27.00 per share for cash, net of issuance costs . . . . .	5,000,000	5	127,535	—	—	—	127,540
Issuance of common stock upon exercise of options and participation in Purchase Plan .	264,623	1	2,831	—	—	—	2,832
Stock compensation expense . . .	—	—	23,759	—	—	—	23,759
Balance at December 31, 2008 . . .	<u>36,646,397</u>	<u>\$37</u>	<u>\$605,509</u>	<u>\$ —</u>	<u>\$396</u>	<u>\$(501,777)</u>	<u>\$ 104,165</u>

See accompanying notes.

**RIGEL PHARMACEUTICALS, INC.**  
**STATEMENTS OF CASH FLOWS**  
(In thousands)

	<u>Years Ended December 31,</u>		
	<u>2008</u>	<u>2007</u>	<u>2006</u>
<b>Operating activities</b>			
Net loss .....	\$(132,346)	\$ (74,272)	\$(37,637)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization .....	1,425	1,344	1,418
Stock-based compensation expense .....	23,759	11,687	12,579
Changes in assets and liabilities:			
Accounts receivable .....	—	1,104	(54)
Prepaid expenses and other current assets .....	(776)	(395)	911
Other assets .....	(105)	152	165
Accounts payable .....	1,721	2,363	(540)
Accrued compensation .....	(6,508)	5,073	871
Other accrued liabilities .....	9,998	145	(438)
Deferred revenue .....	—	(3,066)	(15,272)
Deferred rent and other long term liabilities .....	(686)	3,658	2,161
Net cash used in operating activities .....	<u>(103,518)</u>	<u>(52,207)</u>	<u>(35,836)</u>
<b>Investing activities</b>			
Purchases of available-for-sale securities .....	(194,603)	(134,372)	(85,209)
Maturities of available-for-sale securities .....	170,122	127,508	89,987
Proceeds from the sale of property and equipment .....	18	4	83
Capital expenditures .....	<u>(2,507)</u>	<u>(933)</u>	<u>(913)</u>
Net cash (used in) provided by investing activities .....	<u>(26,970)</u>	<u>(7,793)</u>	<u>3,948</u>
<b>Financing activities</b>			
Proceeds from capital lease financing .....	2,862	918	1,449
Payments on capital lease obligations .....	(1,244)	(1,495)	(1,406)
Net proceeds from issuances of common stock and warrants .....	<u>130,372</u>	<u>57,353</u>	<u>2,793</u>
Net cash provided by financing activities .....	<u>131,990</u>	<u>56,776</u>	<u>2,836</u>
Net increase (decrease) in cash and cash equivalents .....	1,502	(3,224)	(29,052)
Cash and cash equivalents at beginning of period .....	<u>44,503</u>	<u>47,727</u>	<u>76,779</u>
Cash and cash equivalents at end of period .....	<u>\$ 46,005</u>	<u>\$ 44,503</u>	<u>\$ 47,727</u>
<b>Supplemental disclosure of cash flow information</b>			
Interest paid .....	<u>\$ 172</u>	<u>\$ 218</u>	<u>\$ 247</u>
<b>Schedule of non cash transactions</b>			
Issuance of warrants with lease amendment .....	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 801</u>

See accompanying notes.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS**

In this Annual Report on Form 10-K, “Rigel,” “we,” “us” and “our” refer to Rigel Pharmaceuticals, Inc. “common stock” refers to Rigel’s common stock, par value \$0.001 per share.

**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Nature of operations and basis of presentation**

We were incorporated in the state of Delaware on June 14, 1996. We are engaged in the discovery and development of novel, small-molecule drugs for the treatment of inflammatory/autoimmune diseases, as well as for certain cancers and metabolic diseases.

**Financial Statement Preparation**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Significant estimates and assumptions made by management include the fair value of short-term investments, period of the research collaborations, determination of at-risk milestones, fair values of stock-based compensation awards, impairment assessments, the estimated useful life of assets and contingencies. We believe that the estimates and judgments upon which we rely are reasonable based upon information available to us at the time that these estimates and judgments are made, however actual results could differ from these estimates. To the extent there are material differences between these estimates and actual results, our consolidated financial statements will be affected.

**Stock Award Plans**

We have two stock option plans, the 2000 Equity Incentive Plan and 2000 Non-Employee Directors Stock Option Plan, that provide for granting to our officers, directors and all other employees and consultants options to purchase shares of our common stock. Under the plans, we may issue non-qualified options or incentive stock options. We also have an employee stock purchase plan, or Purchase Plan, where eligible employees can purchase shares of our common stock at a price per share equal to the lesser of 85% of the fair market value on the first day of the offering period or 85% of the fair market value on the purchase date. The benefits provided under these plans are stock-based payments subject to the provisions of SFAS No. 123(R) and guidance under the Securities and Exchange Commission’s Staff Accounting Bulletin 107, or SAB No. 107 and SAB No. 110.

Effective January 1, 2006, we adopted the provisions of SFAS No. 123(R) using the modified prospective application transition method. Under this method, the stock-based compensation costs recognized beginning January 1, 2006 includes compensation costs for (i) all stock-based payments granted prior to, but not vested as of January 1, 2006, based on the grant date fair value originally estimated in accordance with the provisions of SFAS No. 123, “*Accounting for Stock-Based Compensation*,” or SFAS No. 123, and (ii) all stock-based payments granted subsequent to January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123(R). For awards granted on or after January 1, 2006, we adopted the use of the straight-line attribution method over the requisite service period for the entire award. See Note 4 for a further discussion on stock-based compensation.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**Cash, cash equivalents and available-for-sale securities**

We consider all highly liquid investments in debt securities with maturity from the date of purchase of 90 days or less to be cash equivalents. Cash equivalents consist of money market funds, U.S. treasury bills, corporate bonds and commercial paper and investments in government-sponsored enterprises. Our short-term investments include obligations of government-sponsored enterprises and corporate bonds and commercial paper. By policy, we limit the concentration of credit risk by diversifying our investments among a variety of high credit-quality issuers.

All cash equivalents and short-term investments are classified as available-for-sale securities. Available-for-sale securities are carried at fair value at December 31, 2008 and 2007. Unrealized gains (losses) are reported in stockholders' equity and included in other comprehensive income (loss). Fair value is estimated based on available market information. The cost of securities sold is based on the specific identification method. See Note 5 for a summary of available-for-sale securities at December 31, 2008 and 2007.

**Fair value of financial instruments**

The carrying values of cash, cash equivalents, accounts payable and accrued liabilities approximate fair value due to the short maturity of those instruments. Available-for-sale securities are carried at fair value at December 31, 2008 and 2007. The carrying values of capital lease obligations approximate fair value due to similar financing arrangements being available to us at market interest rates.

**Property and equipment**

Property and equipment are stated at cost. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets, which range from three to seven years. Leasehold improvements, if any, are amortized using the straight-line method over the estimated useful lives of the assets or the term of the lease, whichever is shorter.

**Revenue recognition**

We recognize revenue from our collaboration arrangements. Our revenue arrangements with multiple elements are evaluated under Emerging Issues Task Force No. 00-21, "*Revenue Arrangements with Multiple Deliverables*," 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.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

Revenues related to collaborative research with our corporate collaborators are recognized as research services are performed over the related development periods for each contract. 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, except for the Merck collaboration signed in November 2004 related to ubiquitin ligases, approximate or exceed the revenue recognized under such agreements over the term of the respective agreements. For the Merck collaboration, we recognized a pro-rata portion of the invoiced amounts for funding of our research scientists based on the headcount dedicated to the project. When the research portion of the collaboration ended in May 2007, we recognized the full amount of the deferred revenue related to the contract as we had no further obligations. It is our policy to recognize revenue based on our level of effort expended, however, revenue recognized will not exceed amounts billable under the arrangement.

Revenues associated with at-risk milestones pursuant to collaborative agreements are recognized based upon the achievement of the milestones as set forth in the applicable agreement.

**Research and development**

Research and development expenses include costs for scientific personnel, supplies, equipment, consultants, research sponsored by us, allocated facility costs, costs related to pre-clinical and clinical trials, and stock-based compensation expense. All such costs are charged to research and development expense as incurred. Collaboration agreements generally specify minimum levels of research effort required to be performed by us.

**Contingencies**

We are subject to claims related to the patent protection of certain of our technologies, as well as a purported securities class action lawsuit and other litigation. We are required to assess the likelihood of any adverse judgments or outcomes to these matters as well as potential ranges of probable losses. A determination of the amount of reserves required, if any, for these contingencies is made after careful analysis of each individual issue.

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 us and certain of our officers, directors and underwriters as defendants for our February 2008 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. We are not currently able to estimate the possible cost to us from these matters, as these lawsuits are currently at an early stage and we cannot ascertain how long it may take to resolve these matters. We have not established any reserve for any potential liability relating to these lawsuits.

A reserve may be required in the future due to new developments with respect to the pending lawsuits or patent claims or changes in approach such as a change in or establishment of a settlement strategy in dealing with these matters. See Note 11 for a further discussion of this litigation.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**Income Taxes**

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

In July 2006, the FASB issued FIN 48, “*Accounting for Uncertainty in Income Taxes*,” or FIN 48. This interpretation requires that we recognize in our financial statements, the impact of a tax position, if that position is more likely than not of being sustained in an audit, based on the technical merits of the position. We adopted FIN 48 for the year ended December 31, 2007. There was no cumulative effect of the change in accounting principle recognized upon adoption. The adoption did not have a material impact on our financial position or results of operations. See Note 10 for a further discussion of the adoption of FIN 48.

**Net loss per share**

Net loss per share has been computed according to FASB Statement No. 128, “*Earnings Per Share*,” which requires disclosure of basic and diluted earnings per share. Basic earnings per share exclude any dilutive effects of options, shares subject to repurchase, warrants and convertible securities. Diluted earnings per share include the impact of potentially dilutive securities.

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

	December 31,		
	2008	2007	2006
Outstanding options . . . . .	6,387	5,080	4,405
Warrants . . . . .	100	100	175
Weighted average exercise price of options . . . . .	\$16.82	\$13.91	\$14.50
Weighted average exercise price of warrants . . . . .	\$10.57	\$10.57	\$13.23

**Recent accounting pronouncements**

On June 25, 2008, the Financial Accounting Standards Board, or FASB, ratified the consensus reached by the EITF on EITF Issue No. 07-5 “*Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity’s Own Stock*”, or EITF 07-5. EITF 07-5 provides guidance on how to determine whether certain instruments or features were indexed to the company’s own stock. EITF 07-5 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. We evaluated the impact of adopting EITF 07-5 and concluded the adoption will have no material effect on our financial statements.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

On December 12, 2007, the FASB ratified the consensus reached by the EITF on EITF Issue No. 07-1, “*Accounting for Collaborative Arrangements*,” or EITF 07-1. EITF 07-1 defines collaborative arrangements and establishes reporting requirements for transactions between participants in a collaborative arrangement and between participants in the arrangement and third parties. EITF 07-1 is effective for financial statements issued for fiscal years beginning after December 15, 2008 and will be applied retrospectively to all prior periods presented for all collaborative arrangements existing as of the effective date. We are evaluating the impact of adopting EITF 07-1 on our financial statements and can not estimate the impact of adoption at this time.

In February 2007, the FASB issued SFAS No. 159, “*The Fair Value Option for Financial Assets and Financial Liabilities-Including an Amendment of FASB Statement No. 115*.” SFAS No. 159 permits entities to choose to measure financial instruments and certain other items at fair value. Entities that elect the fair value option will report unrealized gains and losses in earnings at each subsequent reporting date. The fair value option may be elected on an instrument-by-instrument basis, with few exceptions. SFAS No. 159 also establishes presentation and disclosure requirements to facilitate comparisons between companies that choose different measurement attributes for similar assets and liabilities. We adopted SFAS No. 159 on January 1, 2008, but did not elect the fair value option to measure eligible items. Accordingly, this statement had no effect on our financial statements.

In September 2006, the FASB issued SFAS No. 157, “*Fair Value Measurements*.” This standard defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, except that under FASB Staff Position, or FSP, 157-2, “*Effective Date of FASB Statement No. 157*,” companies are allowed to delay the effective date of SFAS No. 157 for non-financial assets and non-financial liabilities that are not recognized or disclosed at fair value on a recurring basis until fiscal years beginning after November 15, 2008. In October 2008, FSP 157-3, “*Determining the Fair Value of a Financial Asset When the Market for that Asset is Not Active*” was issued and effective upon issuance, including prior periods for which financial statements have not been issued. FSP 157-3 clarified the application of SFAS No. 157 in a market that is not active. We adopted SFAS No. 157 with regard to all financial assets and liabilities in our financial statements in the first quarter of 2008 and have elected to delay the adoption of SFAS No. 157 for non-financial assets and non-financial liabilities until the first quarter of 2009. The partial adoption of SFAS No. 157 in 2008 with regard to all financial assets and liabilities had no material impact on our financial statements. We are currently evaluating the impact of adopting SFAS No. 157 with regard to non-financial assets and non-financial liabilities.

**Reclassifications**

Certain prior year amounts have been reclassified to conform to the current year presentation. We reclassified other receivables of \$442,000 to prepaid expenses and other current assets on the balance sheet.

**2. SPONSORED RESEARCH AND LICENSE AGREEMENTS**

In January 2005, we signed a collaborative research and license agreement with Pfizer, Inc. for the development of intrapulmonary products for the treatment of allergic asthma and chronic obstructive pulmonary disease (COPD). The collaboration is primarily focused on our preclinical small molecule



**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**2. SPONSORED RESEARCH AND LICENSE AGREEMENTS (Continued)**

compounds, which inhibit IgE receptor signaling in respiratory tract mast cells by blocking the signaling enzyme Syk kinase. The goal of the collaboration is for Pfizer to nominate two of the licensed compounds in order to commence advanced preclinical development. We will earn milestone payments upon the selection of each of the two compounds, as well as in connection with other clinical events and royalties from sales of the resulting products upon marketing approval. 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 \$10.0 million upfront and purchased \$5.0 million of our common stock at a premium in 2005. In May 2006, we achieved the first milestone and received a \$5.0 million milestone payment when Pfizer nominated R343 to commence advanced preclinical development in allergic asthma. In December 2007, we achieved the second milestone and received another milestone payment of \$5.0 million when Pfizer initiated a Phase 1 clinical trial on R343. No milestone payments were received in 2008 as no further milestones were met. Pfizer remains obligated to pay us various milestones and royalties in the future if certain conditions are met.

In November 2004, we entered into a broad collaboration agreement with Merck & Co., Inc. to investigate ubiquitin ligases, a new class of drug target, to find treatments for cancer and potentially other diseases. At the time we entered into the agreement, we received an initial cash payment of \$7.6 million and funding for our research scientists for two and a half years. We recognized the upfront payment ratably over the two and a half year term of the research agreement. We recognized a pro-rata portion of the invoiced amounts for funding of our research scientists based on the headcount dedicated to the project for the quarter. When the research portion of the collaboration ended in May 2007, we recognized the full amount of the deferred revenue related to the contract as we had no further obligations under the collaboration. We are eligible to receive certain milestone payments and royalties in the future. Merck is responsible for worldwide development and commercialization of any resulting compounds and will pay Rigel royalties on future product sales, if any.

In October 2005, we entered into a collaborative research and license agreement with Merck Serono granting them an exclusive license to develop and commercialize product candidates from our aurora kinase inhibitor program. Even though the agreement included a basket of compounds within the aurora kinase inhibitor program, the collaboration and our efforts under the agreement were focused on R763. We were responsible for all costs associated with the preparation and filing of an IND for R763 while Merck Serono is responsible for all development of R763 following regulatory acceptance of the IND and will bear all costs thereafter. We are also eligible to receive milestone payments and royalties in the future. In connection with this collaboration, Merck Serono paid us \$10.0 million upfront and purchased \$15.0 million of our common stock at a premium in 2005. We amortized the upfront amount into revenue over the nine months from the initiation of the collaboration in October 2005. As of June 2006, we had completely recognized the upfront amount into revenue as we had performed all our deliverables under the collaboration and did not have any further obligations to Merck Serono leading up to the initiation of the first clinical trial.

During February 2006, we received a milestone payment of \$5.0 million triggered by the regulatory acceptance of the R763 IND in January 2006. In September 2006, we received a \$3.0 million milestone payment from Merck Serono in connection with the initiation of the Phase 1 study of R763. In October 2007, we received another \$3.0 million milestone payment from Merck Serono upon their exercise of the option to obtain Japan rights for R763.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**3. SIGNIFICANT CONCENTRATIONS**

There were no contract revenues reported during the year 2008. For the year ended December 31, 2007, Pfizer, Merck and Merck Serono accounted for 46%, 30% and 24% of total revenues, respectively. For the year ended December 31, 2006, Merck Serono, Pfizer and Merck accounted for 46%, 30% and 24% of total revenues, respectively. At December 31, 2008 and 2007, we had no accounts receivable. We do not require collateral or other security for accounts receivable.

**4. STOCK-BASED COMPENSATION**

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

	Year Ended December 31,		
	2008	2007	2006
Research and development . . . . .	\$12,272	\$ 5,519	\$ 6,515
General and administrative . . . . .	11,487	6,168	6,064
Stock-based compensation expense . . . . .	\$23,759	\$11,687	\$12,579

In January 2008, we granted 1,305,691 shares of stock options to our employees. Due to a higher stock price and volatility rate on the grant date, the valuation for these stock options was approximately \$24.1 million. The increase of stock-based compensation expense in 2008 was mainly due to the amortization of expense associated with the January 2008 grant.

Our stock compensation expense for 2007 includes a charge of approximately \$924,000 to correct the misapplication of our estimated forfeiture rate to stock-based compensation expense in 2006. In 2006, our quarterly reported amounts of stock compensation expense were inadvertently reduced by the effect of the expected forfeitures which had already been taken into account in the preceding quarters. The impact of this adjustment was not material to 2007 and prior reporting periods.

**Employee stock option plans**

In 2006, an amendment to the 2000 Plan was approved to primarily increase the number of shares authorized for issuance by 500,000 shares of common stock. In 2007, the 2000 Plan was amended, primarily to increase the number of shares authorized for issuance to an aggregate total of 8,410,403 shares. In 2008, the 2000 Plan was amended, primarily to increase the number of shares authorized for issuance by 3,350,000 shares. Options granted under our 2000 Plan expire no later than ten years from the date of grant. The option price of each incentive stock option shall be at least 100% of the fair value on the date of grant, and the option price for each nonstatutory stock option shall be not less than 85% of the fair value on the date of grant, as determined by the board of directors. Options may be granted with different vesting terms from time to time, ranging from zero to five years. As of December 31, 2008, a total of 10,340,053 shares of common stock were authorized for issuance under the 2000 Plan. Options to purchase 164,309 shares were exercised during the year ended December 31, 2008.

In 2007, the Directors' Plan was amended, primarily to increase the number of shares authorized for issuance by 110,000 shares to an aggregate total of 435,000 shares. In 2008, the Directors' Plan was amended, primarily to increase the number of shares authorized for issuance by 100,000 shares to an aggregate total of 535,000 shares. The exercise price of options under the Directors' Plan will be equal

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**4. STOCK-BASED COMPENSATION (Continued)**

to the fair market value of the common stock on the date of grant. The maximum term of the options granted under the Directors' Plan is ten years. As of December 31, 2008, a total of 532,211 shares of common stock were authorized for issuance under the Directors' Plan. No options to purchase shares were exercised during the year ended December 31, 2008.

In December 2007, we adopted a Change of Control Severance Plan for employees serving at or above the level of Vice President. Under this plan, under certain conditions, primarily upon a change in control of the Company, they would receive the payment of certain benefits, including accelerated vesting of all their outstanding stock options and an extension of the period to exercise outstanding options to the earlier of the original option expiration date or the one year anniversary of the triggering event. There was no stock-based compensation expense incurred during the current period due to the adoption of the Change of Control Severance Plan.

Pursuant to SFAS No. 123(R), we are required to estimate the amount of expected forfeitures when calculating compensation costs. We adjust our stock-based compensation expense as actual forfeitures occur, review our estimated forfeiture rates each quarter and make changes to our estimate as appropriate.

Under SFAS No. 123(R), the fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model. We have segregated option awards into three homogenous groups, officers and directors, all other employees, and consultants, for purposes of determining fair values of options.

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

- Volatility—We estimated volatility using the historical share price performance over the expected life of the option up to the point where we have historical market data. We also considered other factors, such as implied volatility, our current clinical trials and other company activities that may affect the volatility of our stock in the future. We determined that at this time historical volatility is more indicative of our expected future stock performance.
- Expected term—We worked with various historical data to determine the most applicable expected term for each option group. These data included: (1) for options exercised, term of the options from option grant date to exercise date; (2) for options cancelled, term of the options from grant date to cancellation date, excluding unvested option forfeitures; and (3) for options which remained outstanding at the balance sheet date, term of the options from grant date to the end of the reporting period, and the estimated remaining term of the options. The consideration and calculation of the above data gave us reasonable estimates of the expected term for each option group. We also considered the vesting schedules of the options granted and factors surrounding exercise behavior of the option groups, our current market price and company activity that may affect our market price. In addition, we also considered the vesting schedules of the options, the optionee type (i.e., officers and directors, all other employees and consultants) and other factors that may affect the expected term of the option. For options granted to consultants, we use the contractual term of the option, which is generally ten years, for the initial valuation of the option and the remaining contractual term of the option for the succeeding periods.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**4. STOCK-BASED COMPENSATION (Continued)**

- Risk-free interest rate—The risk-free interest rate is based on U.S. Treasury constant maturity rates with similar terms to the expected term of the options for each option group.
- Forfeiture rate—We estimated the forfeiture rate using our historical experience with pre-vesting options. We review our forfeiture rates each quarter and make changes as factors affecting our forfeiture rate calculations and assumptions change.
- Dividend yield—The expected dividend yield is 0% as we have not paid and do not expect to pay dividends.

The following table summarizes the weighted-average assumptions relating to options granted pursuant to our equity incentive plans for the years ended December 31, 2008, 2007 and 2006:

	Stock Option Plans Year Ended December 31,		
	2008	2007	2006
Risk-free interest rate . . . . .	2.8%	4.6%	4.7%
Expected term (in years) . . . . .	4.5	4.1	4.4
Dividend yield . . . . .	0.0%	0.0%	0.0%
Expected volatility . . . . .	93.0%	79.6%	95.6%

Options are priced at the market price of our common stock on the date of grant, become exercisable at varying dates and generally expire ten years from the date of grant. At December 31, 2008, options to purchase 4,485,639 shares of common stock were available for grant and 10,872,264 reserved shares of common stock were available for future issuance under our stock option plans.

We recorded stock-based compensation expense of approximately \$194,000, \$209,000 and \$267,000 for the years ended December 31, 2008, 2007, and 2006, respectively, associated with options granted to consultants reflecting the fair value valuation and periodic fair value re-measurement of outstanding consultant options under EITF No. 96-18, “*Accounting for Equity Instruments That are Issued to Other Employees for Acquiring, or in Conjunction with Selling, Goods or Services,*” or EITF 96-18. 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. For consultant options granted on or after January 1, 2006, we amortized stock-based compensation using a straight-line attribution method consistent with the method used for employees and with the attribution election we made upon adoption of SFAS No. 123(R). For options granted prior to January 1, 2006, we used the accelerated method for expensing stock-based compensation. As of September 30, 2008, all of our outstanding consultant options were fully vested and the related stock-based compensation expenses were fully recognized.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**4. STOCK-BASED COMPENSATION (Continued)**

**Stock-based Compensation Award Activity**

Option activity under our equity incentive plans was as follows:

	<u>Shares Available For Grant</u>	<u>Number of Options</u>	<u>Weighted-Average Exercise Price</u>	<u>Weighted-Average Remaining Contractual Term</u>	<u>Aggregate Intrinsic Value</u>
Outstanding at January 1, 2006 . . . . .	1,694,834	3,893,219	\$15.98		
Authorized for grant . . . . .	500,000	—			
Granted . . . . .	(1,229,967)	1,229,967	\$ 8.79		
Exercised . . . . .	—	(206,636)	\$ 7.96		
Cancelled . . . . .	511,339	(511,339)	\$14.72		
Outstanding at December 31, 2006 . . . . .	<u>1,476,206</u>	<u>4,405,211</u>	\$14.50		
Authorized for grant . . . . .	2,010,000	—			
Granted . . . . .	(1,052,517)	1,052,517	\$11.32		
Exercised . . . . .	—	(304,844)	\$12.96		
Cancelled . . . . .	72,967	(72,967)	\$15.92		
Outstanding at December 31, 2007 . . . . .	<u>2,506,656</u>	<u>5,079,917</u>	\$13.91		
Authorized for grant . . . . .	3,450,000	—			
Granted . . . . .	(1,534,865)	1,534,865	\$25.81		
Exercised . . . . .	—	(164,309)	\$10.19		
Cancelled . . . . .	63,848	(63,848)	\$18.63		
Outstanding at December 31, 2008 . . . . .	<u>4,485,639</u>	<u>6,386,625</u>	\$16.82	7.00	\$625,764
Vested and expected to vest at December 31, 2008 . . . . .		<u>6,314,989</u>	\$16.82		
Exercisable at December 31, 2008 . . . . .		<u>5,262,038</u>	\$16.03	6.69	\$610,924
Exercisable at December 31, 2007 . . . . .		<u>3,944,713</u>	\$13.52		
Exercisable at December 31, 2006 . . . . .		<u>2,768,121</u>	\$13.39		
Weighted average grant-date fair value of options granted during 2008 . . . . .			\$17.97		
Weighted average grant-date fair value of options granted during 2007 . . . . .			\$ 7.00		
Weighted average grant-date fair value of options granted during 2006 . . . . .			\$ 6.24		

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**4. STOCK-BASED COMPENSATION (Continued)**

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying awards and the quoted price of our common stock for the options that were in-the-money at December 31, 2008. During the years ended December 31, 2008, 2007 and 2006, the aggregate intrinsic value of options exercised under our stock option plans was approximately \$2.4 million, \$3.4 million and \$470,000, respectively, determined as of the date of option exercise. As of December 31, 2008, there was approximately \$10.7 million of total unrecognized compensation cost, net of estimated forfeitures, related to unvested stock-based compensation arrangements granted under our stock option plans and approximately \$1.1 million of total unamortized compensation cost related to our Purchase Plan. The unamortized compensation cost related to our stock option plans is expected to be recognized over a weighted-average period of 2.19 years. We also had approximately 1.1 million of unvested stock options at December 31, 2008. Future option grants and their valuation will increase our compensation cost in the future as the options are granted, valued and expensed ratably according to their vesting periods.

Details of our stock options by exercise price are as follows as of December 31, 2008:

Exercise Price	Options Outstanding			Options Exercisable	
	Number of Outstanding Options	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number of Options	Weighted-Average Exercise Price
\$1.80-\$8.15	666,678	5.90	\$ 7.09	613,713	\$ 7.04
\$8.25-\$9.93	1,271,979	5.41	8.62	1,209,956	8.57
\$10.20-\$11.36	568,436	7.87	10.94	334,592	10.92
\$11.73-\$14.75	614,509	7.85	11.94	614,509	11.94
\$15.49-\$22.54	670,249	6.10	19.25	601,889	19.07
\$23.00-\$24.56	1,288,747	6.74	23.84	1,035,527	23.80
\$25.36-\$40.50	1,306,027	9.06	26.45	851,852	26.46
\$1.80—\$40.50	<u>6,386,625</u>	7.00	\$16.82	<u>5,262,038</u>	\$16.03

**Employee Stock Purchase Plan**

In August 2000, we adopted the Purchase Plan which was approved in September 2000 by our stockholders. In 2007, the Purchase Plan was amended to (i) increase the number of shares authorized for purchase under the Purchase Plan by 1,500,000 and (ii) terminate the provision providing for an annual increase to the Purchase Plan, effective January 1, 2008. The Purchase Plan permits eligible employees to purchase common stock at a discount through payroll deductions during defined offering periods. The price at which the stock is purchased is equal to the lesser of 85% of the fair market value of the common stock on the first day of the offering or 85% of the fair market value of our common stock on the purchase date. The initial offering period commenced on the effective date of our initial public offering. We issued 100,314, 146,243 and 159,380 shares of common stock during 2008, 2007 and 2006, respectively, pursuant to the Purchase Plan at an average price of \$11.54 per share, \$7.28 per share and \$7.21 per share, respectively. For 2008, 2007 and 2006, the weighted average fair value of stock issued under the Purchase Plan was \$13.88, \$2.80 and \$4.95, respectively. The number of shares reserved for future issuance under the Purchase Plan was increased by 1,500,000, 88,888 and 88,888 during 2008, 2007 and 2006, respectively. As of December 31, 2008, we had 1,409,931 reserved shares of common stock for future issuance under the Purchase Plan.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**4. STOCK-BASED COMPENSATION (Continued)**

The fair value of awards granted under our Purchase Plan is estimated on the date of grant using the Black-Scholes option pricing model, which uses the weighted-average assumptions set forth in the table below. Our Purchase Plan provides for a twenty-four month offering period comprised of four six-month purchase periods with a look-back option. A look-back option is a provision in our Purchase Plan where eligible employees can purchase shares of our common stock at a price per share equal to the lesser of 85% of the fair market value on the first day of the offering period or 85% of the fair market value on the purchase date. Our Purchase Plan also includes a feature that provides for a new offering period to begin when the fair market value of our common stock on any purchase date during an offering period falls below the fair market value of our common stock on the first day of such offering period. This feature is called a “reset.” Participants are automatically enrolled in the new offering period. We had a “reset” for a new twenty-four month offering period starting on July 1, 2008 because the fair market value of our stock on June 30, 2008 was lower than the fair market value of our stock on January 2, 2008, the first day of the offering period. We applied modification accounting in accordance with SFAS No. 123(R) to determine the incremental fair value associated with this Purchase Plan “reset” and recognized the related stock-based compensation expense according to the FASB Technical Bulletin, or FTB, No. 97-1, “Accounting Under Statement 123 for Certain Employee Stock Purchase Plans with a Look-back Option.” The total incremental fair value for this Purchase Plan “reset” was \$849,155, which will be recognized over the new twenty-four month offering period. We had another “reset” on January 2, 2009 because the fair market value of our stock on December 31, 2008 was lower than the fair market value of our stock on July 1, 2008, the first day of the offering period. We are assessing the incremental fair value associated with this Purchase Plan “reset” which will be recorded beginning in the first quarter of 2009.

The following table summarizes the weighted-average assumptions related to our Purchase Plan for the twelve months ended December 31, 2008, 2007 and 2006. Expected volatilities for our Purchase Plan are based on the historical volatility of our stock. Expected term represents the weighted average of the purchase periods within the offering period. The risk-free interest rate for periods within the expected term is based on U.S. Treasury constant maturity rates. There have been no significant changes in the assumptions before and after the “reset” of our Purchase Plan in July 2008.

	<b>Employee Stock Purchase Plan</b>		
	<b>Year Ended</b>		
	<b>December 31,</b>		
	<b>2008</b>	<b>2007</b>	<b>2006</b>
Risk-free interest rate . . . . .	2.1%	4.7%	4.6%
Expected term (in years) . . . . .	1.3	0.6	1.2
Dividend yield . . . . .	0.0%	0.0%	0.0%
Expected volatility . . . . .	99.0%	45.5%	109.9%

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**5. CASH, CASH EQUIVALENTS AND AVAILABLE-FOR-SALE SECURITIES**

Cash, cash equivalents and available-for-sale securities consist of the following (in thousands):

	December 31,	
	2008	2007
Checking account . . . . .	\$ 491	\$ 425
Money market funds . . . . .	45,514	15,051
U. S. treasury bills . . . . .	26,085	—
Government-sponsored enterprise securities . . . . .	34,641	38,262
Corporate bonds and commercial paper . . . . .	27,746	54,558
	\$134,477	\$108,296
Reported as:		
Cash and cash equivalents . . . . .	\$ 46,005	\$ 44,503
Available-for-sale securities . . . . .	88,472	63,793
	\$134,477	\$108,296

Cash equivalents and available-for-sale securities included the following securities with unrealized gains and losses (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
<b>December 31, 2008</b>				
U. S. treasury bills . . . . .	\$25,972	\$113	\$—	\$26,085
Government-sponsored enterprise securities . . . . .	34,501	140	—	34,641
Corporate bonds and commercial paper . . . . .	27,603	143	—	27,746
Total . . . . .	\$88,076	\$396	\$—	\$88,472
<b>December 31, 2007</b>				
Government-sponsored enterprise securities . . . . .	\$38,256	\$ 18	\$—	\$38,274
Corporate bonds and commercial paper . . . . .	54,366	197	(5)	54,558
Total . . . . .	\$92,622	\$215	\$(5)	\$92,832

As of December 31, 2008, all of our cash equivalents and available-for-sale securities had maturities of less than one year. At December 31, 2008, our available-for-sale securities had a weighted average maturity of approximately 108 days. We have the ability to hold all investments as of December 31, 2008 to maturity.

At December 31, 2008 and 2007, we had no investment that has been in a continuous unrealized loss position for more than twelve months. As of December 31, 2007, a total of three individual securities were in an unrealized loss position for twelve months or less that was deemed to be



**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**5. CASH, CASH EQUIVALENTS AND AVAILABLE-FOR-SALE SECURITIES (Continued)**

temporary. The following table shows the unrealized losses and fair values of these three securities as of December 31, 2007 by investment category (in thousands):

	<u>Estimated Fair Value</u>	<u>Unrealized Losses</u>
Government-sponsored enterprise securities .....	\$ —	\$—
Corporate bonds and commercial paper .....	6,394	(5)
Total .....	<u>\$6,394</u>	<u>\$(5)</u>

**6. FAIR VALUE**

Under SFAS No. 157, fair value is defined as the price at which an asset could be exchanged or a liability transferred in a transaction between knowledgeable, willing parties in the principal or most advantageous market for the asset or liability. Where available, fair value is based on observable market prices or parameters or derived from such prices or parameters. Where observable prices or parameters are not available, valuation models are applied.

Financial assets recorded at fair value in our financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels, defined by SFAS No. 157 and directly related to the amount of subjectivity associated with the inputs to fair valuation of these assets and liabilities, are as follows:

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

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

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

The fair valued assets we hold that are generally included under this Level 2 were government-sponsored enterprise securities, U. S. Treasury bills, corporate bonds and commercial paper where fair value is based on valuation methodologies such as models using observable market inputs, including benchmark yields, reported trades, broker/dealer quotes, bids, offers and other reference data.

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities and which reflect management's best estimate of what market participants would use in pricing the asset or liability at the reporting date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

We carry no investments classified under Level 3.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**6. FAIR VALUE (Continued)**

**Fair Value on a Recurring Basis**

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

	Assets at Fair Value as of December 31, 2008			
	Level 1	Level 2	Level 3	Total
Money market fund . . . . .	\$45,514	\$ —	\$—	\$ 45,514
U. S. treasury bills . . . . .	—	26,085	—	26,085
Government-sponsored enterprise securities . . . . .	—	34,641	—	34,641
Corporate bonds and commercial paper . . . . .	—	27,746	—	27,746
Total . . . . .	<u>\$45,514</u>	<u>\$88,472</u>	<u>\$—</u>	<u>\$133,986</u>

**7. PROPERTY AND EQUIPMENT**

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

	December 31,	
	2008	2007
Laboratory and office equipment . . . . .	\$ 19,019	\$ 17,207
Construction in progress . . . . .	5	5
Total property and equipment . . . . .	19,024	17,212
Less accumulated depreciation and amortization . . . . .	<u>(15,457)</u>	<u>(14,652)</u>
Property and equipment, net . . . . .	<u>\$ 3,567</u>	<u>\$ 2,560</u>

During 2008, we disposed of approximately \$694,000 of assets with related accumulated depreciation of approximately \$619,000. In 2007, we disposed of approximately \$6,000 of assets with related accumulated depreciation of approximately \$2,000.

At December 31, 2008 and 2007, equipment under capital leases included in property and equipment had a cost of approximately \$5.2 million and \$4.0 million, respectively. Total depreciation expense, which includes amortization from equipment under capital leases, was \$1.4 million, \$1.3 million and \$1.4 million for the years ended December 31, 2008, 2007 and 2006, respectively.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**8. LONG-TERM OBLIGATIONS**

At December 31, 2008, future minimum lease payments and obligations under all noncancelable leases were as follows (in thousands):

	<u>Capital Leases</u>	<u>Operating Leases</u>
For years ending December 31,		
2009 . . . . .	\$ 1,504	\$ 16,481
2010 . . . . .	1,261	14,561
2011 . . . . .	863	14,838
2012 . . . . .	45	15,354
2013 . . . . .	—	13,809
2014 and thereafter . . . . .	—	62,314
Total minimum payments required . . . . .	<u>3,673</u>	<u>\$137,357</u>
Less amount representing interest . . . . .	<u>(281)</u>	
Present value of future lease payments . . . . .	3,392	
Less current portion . . . . .	<u>(1,339)</u>	
Noncurrent obligations under capital leases . . . . .	<u>\$ 2,053</u>	

We entered into a build-to-suit lease agreement with our landlord in May 2001, and moved into our current facilities in February 2003. In January 2005, we entered into an amendment with the landlord for our office lease to decrease the contractual rental commitments in 2005 by approximately \$1.0 million. In July 2006, we amended our facility lease again in order to defer certain rent payments originally to occur in 2006 and 2007. The deferred payments are due to be paid to the landlord over the period starting from 2009 to 2012. We may prepay the deferred amount at any time without penalty. We reevaluated the lease amendment under SFAS No. 13, "Accounting for Leases" and determined that the amended lease still qualified as an operating lease. In conjunction with the lease amendment, a warrant was issued to purchase 100,000 shares of our common stock at \$10.57 per share. The warrant remains exercisable until July 2013 and is exercisable at the option of the holder. See further discussion of the warrants in Note 9—Stockholder's Equity.

During May 2004, we initiated a sublease of approximately 15,000 square feet of our premises to a tenant for a period of two years. The sublease was amended in September 2005 to extend the term for an additional year. In May 2007, we subleased approximately 6,180 square feet of our space to another tenant. The sublease was terminated in March 2008. Rent expense, net of sublease income, under all operating leases amounted to approximately \$14.5 million, \$15.1million and \$14.4 million for the years ended December 31, 2008, 2007 and 2006, respectively.

In August 2000, we obtained a master agreement with a leasing company to finance our capital purchases. Under this agreement, from time to time we sell to the leasing company at cost and lease back the equipment we purchased. The lease period is three years with the interest rate on the lease fixed at drawdown and ranging approximately from 10.3% to 10.9%. Each line has a bargain purchase buyout provision of \$101. We account for the sale-leaseback transaction as financing, with no sale and no gain (loss) being recognized. As of December 31, 2008, the outstanding principal balance under the credit lines was approximately \$714,000.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**8. LONG-TERM OBLIGATIONS (Continued)**

In January 2008, we obtained a new equipment lease line with a borrowing capability of \$1.5 million. Our borrowing capacity under this equipment lease line was increased to \$3.2 million in July 2008. Our ability to draw down on this line expired at the end of 2008. The repayment period from this line is three years beginning on the date of each draw down, with the interest rate on the line fixed at each draw down. Each draw down has a bargain purchase buyout provision of \$1. During the year 2008, we drew down approximately \$2.9 million, which is included in our capital lease obligation on our balance sheet. As of December 31, 2008, the outstanding principal balance under the credit lines was approximately \$2.7 million.

Obligations under all capital leases are secured by the assets financed under the leases.

**9. STOCKHOLDERS' EQUITY**

**Preferred Stock**

We are authorized to issue 10,000,000 shares of preferred stock. As of December 31, 2008 and 2007, there were no issued and outstanding shares of preferred stock. Our board of directors is authorized to fix or alter the designation, powers, preferences and rights of the shares of each such series of preferred shares, and the qualifications, limitations or restrictions of any wholly unissued shares, to establish from time to time the number of shares constituting any such series, and to increase or decrease the number of shares, if any.

**Common Stock**

During the first quarter of 2008, we completed an underwritten public offering in which we sold 5,000,000 shares of our common stock at a price of \$27.00 per share to the public. We received net proceeds of approximately \$127.5 million after deducting underwriting discounts, and commissions and offering expenses.

**Warrants**

In conjunction with the facilities lease entered into in May 2001, we issued a warrant to the lessor to purchase 16,666 shares of our common stock at an exercise price of \$80.21 per share, a 15% premium to market at the time of issuance. This warrant expired in May 2006. The fair market value of this warrant, as determined using the Black-Scholes valuation model, was approximately \$683,000. This amount has been capitalized in other long-term assets and is being amortized into expense over the life of the lease. As of December 31, 2008, approximately \$413,000 remained to be amortized over the life of the lease.

In conjunction with the facilities lease amendment in October 2002, we issued a warrant to the lessor to purchase 55,555 shares of our common stock at an exercise price of \$17.73 per share. The warrant expired in October 2007. The fair value of this warrant, as determined using the Black-Scholes valuation model, was approximately \$565,000. This amount has been capitalized in other long-term assets and is being amortized into expense over the life of the lease. As of December 31, 2008, approximately \$342,000 remained to be amortized over the life of the lease.

In conjunction with the facilities lease amendment in July 2006, we issued a warrant to the lessor to purchase 100,000 shares of our common stock at an exercise price of \$10.57 per share. The warrant is outstanding as of December 31, 2008 and exercisable at any time up to July 2013. The fair value of

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**9. STOCKHOLDERS' EQUITY (Continued)**

this warrant, as determined using the Black-Scholes valuation model, was approximately \$801,000. The amount has been included in other long-term assets and is being amortized into expense over the life of the lease. As of December 31, 2008, approximately \$629,000 remained to be amortized over the life of the lease.

As of December 31, 2008, we had reserved shares of common stock for future issuance as follows:

	<u>December 31, 2008</u>
Warrants . . . . .	100,000
Incentive stock plans . . . . .	10,872,264
Purchase Plan . . . . .	<u>1,409,931</u>
Total . . . . .	<u><u>12,382,195</u></u>

**10. INCOME TAXES**

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

	<u>December 31,</u>	
	<u>2008</u>	<u>2007</u>
Deferred tax assets		
Net operating loss carryforwards . . . . .	\$ 152,034	\$ 111,297
Research and development credits . . . . .	19,511	15,469
Capitalized research and development expenses . . . . .	19,815	15,671
Deferred compensation . . . . .	15,282	7,647
Other, net . . . . .	<u>7,096</u>	<u>7,688</u>
Total deferred tax assets . . . . .	213,738	157,772
Valuation allowance . . . . .	<u>(213,738)</u>	<u>(157,772)</u>
Net deferred tax assets . . . . .	<u><u>\$ —</u></u>	<u><u>\$ —</u></u>

As of December 31, 2008, we had net operating loss carryforwards for federal income tax purposes of approximately \$431.0 million, which expire beginning in the year 2011 and state net operating loss carryforwards of approximately \$94.0 million, which expire beginning in the year 2015.

We also have federal research and development tax credits of \$14.1 million, which begin to expire in the year 2012 and state research and development tax credits of approximately \$12.2 million, which have no expiration date. Federal refundable credit of \$89,000 for 2008 was calculated based on fixed assets placed into service from April 1, 2008 to December 31, 2008, in accordance with the provisions of the Housing and Economic Recovery Act of 2008.

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by \$56.0 million and \$30.9 million for the years ended December 31, 2008 and 2007, respectively.

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**10. INCOME TAXES (Continued)**

Included in the valuation allowance balance at December 31, 2008 is \$4.1 million of tax deductions related to the exercise of stock options which are not reflected as an expense for financial reporting purposes. Accordingly, any future reduction in the valuation allowance relating to this amount will be credited directly to equity and not reflected as an income tax benefit in the statement of operations.

Utilization of the net operating loss may be subject to annual limitations if there are ownership changes in the future. The limitations are subject to Internal Revenue Code and similar state provisions and such limitations could result in the expiration of the net operating loss before utilization.

**Adoption of FASB Interpretation No. 48**

On January 1, 2007, we adopted the provisions of FIN 48, *Accounting for Uncertainty in Income Taxes*, which clarifies the accounting for uncertainty in income taxes recognized in accordance with SFAS No. 109, *Accounting for Income Taxes*. The following table summarizes the activity related to our gross unrecognized tax benefits (in thousands):

	<u>2008</u>	<u>2007</u>
Balance at the beginning of the year . . . . .	\$3,400	\$3,400
Increases related to prior year tax positions . . . . .	—	—
Increases related to current year tax positions . . . . .	—	—
Balance at the end of the year . . . . .	<u>\$3,400</u>	<u>\$3,400</u>

As of the date of adoption on January 1, 2007, we recorded a \$3.4 million reduction to deferred tax assets for unrecognized tax benefits, all of which was offset by a full valuation allowance and therefore did not record any adjustment to the beginning balance of retained earnings on the balance sheet. We do not anticipate a significant change to its unrecognized tax benefits over the next twelve months.

We file income tax returns in the U.S. federal jurisdiction and in California, and the tax returns filed for the years 2002 through 2007 have not been examined and have not expired by the statute of limitations. Because of net operating loss and research credit carryovers, substantially all of our tax years remain open to examination.

Our policy is that we recognize interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense. As of the date of adoption of FIN 48, we did not have any accrued interest or penalties associated with any unrecognized tax benefits.

**11. SUBSEQUENT EVENTS**

In February 2009, we announced that we have 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 is intended to maintain our emphasis on active preclinical and clinical programs, while conserving our resources. We are still assessing the restructuring and other charges associated with this measure, which are expected to be recorded in the first quarter of 2009.

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 us and certain of our officers,

**Rigel Pharmaceuticals, Inc.**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**

**11. SUBSEQUENT EVENTS (Continued)**

directors and underwriters as defendants for our February 2008 stock offering. The lawsuit alleges violations of the Securities Act of 1933 and the Securities Exchange Act of 1934 in connection with allegedly false and misleading statements made by us related to the results of a Phase II clinical trial of our product candidate R788. The plaintiff seeks damages, including rescission or rescissory damages for purchasers in the stock offering, an award of its costs and injunctive and/or equitable relief for purchasers of our common stock during the period between December 13, 2007 and October 27, 2008, including purchasers in 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. It is possible that additional suits will be filed, or allegations received from stockholders, with respect to these same matters and also naming us and/or our executive officers and directors as defendants. These lawsuits and any other related lawsuits are subject to inherent uncertainties and the actual cost 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 these suits, and we may not prevail. We are not currently able to estimate the possible cost to us from these matters, as these lawsuits are currently at an early stage and we cannot ascertain how long it may take to resolve these matters. We have not established any reserve for any potential liability relating to these lawsuits. We believe that we have meritorious defenses and intend to defend these lawsuits vigorously.

**12. SELECTED QUARTERLY FINANCIAL DATA**

	Year Ended December 31, 2008				Year Ended December 31, 2007			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	(unaudited, in thousands, except per share amounts)							
Revenue . . . . .	\$ —	\$ —	\$ —	\$ —	\$ 2,644	\$ 1,956	\$ —	\$ 8,000
Net loss . . . . .	\$(27,262)	\$(34,029)	\$(37,691)	\$(33,364)	\$(17,081)	\$(19,245)	\$(18,944)	\$(19,002)
Net loss per share, basic and diluted . . . . .	\$ (0.79)	\$ (0.93)	\$ (1.03)	\$ (0.91)	\$ (0.68)	\$ (0.68)	\$ (0.61)	\$ (0.61)
Weighted average shares used in computing net loss per share, basic and diluted . . . . .	34,417	36,505	36,581	36,584	25,184	28,355	31,030	31,084

Net loss in the fourth quarter of 2008 decreased mainly due to the reversal of the bonus expense of \$3.0 million recorded in the previous quarters as we decided not to pay any bonuses for 2008.

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

None.

### **Item 9A. Controls and Procedures**

#### **Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures**

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the Exchange Act). Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Annual Report.

#### **Management's Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control—Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2008.

The effectiveness of our internal control over financial reporting as of December 31, 2008 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in its attestation report which is set forth below in this Annual Report on Form 10K.



## **Report of Independent Registered Public Accounting Firm**

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

We have audited Rigel Pharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Rigel Pharmaceuticals Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Controls Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, Rigel Pharmaceuticals, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheets of Rigel Pharmaceuticals, Inc. as of December 31, 2008 and 2007, and the related statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2008 and our report dated February 24, 2009 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

Palo Alto, California  
February 24, 2009

## **Changes in Internal Controls over Financial Reporting**

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

### **Item 9B. Other Information**

None.

## **PART III**

### **Item 10. Directors and Executive Officers of the Registrant**

Information regarding our directors and executive officers is incorporated by reference to the information set forth under the caption “Directors and Executive Officers” in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days of December 31, 2008. Such information is incorporated herein by reference.

In 2003, we adopted a code of ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Our code of ethics is on our website at <http://ir.rigel.com/phoenix.zhtml?c=120936&p=irol-govhighlights> . If we make any substantive amendments to the code or grant any waiver from a provision of the code applicable to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on a Form 8-K.

### **Item 11. Executive Compensation**

Information regarding executive compensation is incorporated by reference to the information set forth under the caption “Executive Compensation” in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days of December 31, 2008. Such information is incorporated herein by reference.

### **Item 12. Security Ownership of Certain Beneficial Owners and Management**

Information regarding security ownership of certain beneficial owners and management is incorporated by reference to the information set forth under the caption “Security Ownership of Certain Beneficial Owners and Management” and “Equity Compensation Plan Information” in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days of December 31, 2008. Such information is incorporated herein by reference.

### **Item 13. Certain Relationships and Related Transactions**

Information regarding certain relationships and related transactions is incorporated by reference to the information set forth under the caption “Certain Transactions” in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days of December 31, 2008. Such information is incorporated herein by reference.

### **Item 14. Principal Accounting Fees and Services**

Information regarding principal accounting fees and services is incorporated by reference to the information set forth under the caption “Ratification of Independent Auditors” in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days of December 31, 2008. Such information is incorporated herein by reference.

## PART IV

### Item 15. Exhibits, Financial Statement Schedules

- (a) The following documents are being filed as part of this Annual Report on Form 10-K:
1. Financial Statements—Index to Financial Statements in Item 8 of this Annual Report on Form 10-K and selected quarterly financial data for the last two years in Note 12.
  2. Financial Statement Schedules—None—As all required disclosures have been made in the footnotes to the financial statements.
  3. Exhibits:
    - 3.1 Amended and Restated Certificate of Incorporation (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) dated June 24, 2003, and incorporated herein by reference).
    - 3.2 Amended and Restated Bylaws (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889), dated February 2, 2007, and incorporated herein by reference).
    - 4.1 Form of warrant to purchase shares of common stock (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
    - 4.2 Specimen Common Stock Certificate (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) dated June 24, 2003, and incorporated herein by reference).
    - 4.3 Warrant issued to Kwacker Limited for the purchase of shares of common stock (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2006 (No. 000-29889) and incorporated herein by reference).
    - 10.1+ Form of Stock Option Agreement pursuant to 2000 Equity Incentive Plan (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
    - 10.2 Collaboration Agreement between Rigel and Janssen Pharmaceutica N.V., dated December 4, 1998 (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
    - 10.3 Collaborative Research and License Agreement between Rigel and Pfizer Inc., dated January 31, 1999 (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
    - 10.4 Collaboration Agreement between Rigel and Novartis Pharma AG, dated May 26, 1999 (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
    - 10.5\* License and Research Agreement between Rigel and Cell Genesys, Inc., dated September 2, 1999 (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).
    - 10.6 Technology Transfer Agreement between Rigel and Questcor Pharmaceuticals, Inc., dated September 22, 2000 (filed as an exhibit to Rigel's Registration Statement on Form S-1 (No. 333-45864), as amended, and incorporated herein by reference).

- 10.7 Build-to-suit lease between Rigel and Slough BTC, LLC, dated May 16, 2001 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 (No. 000-29889) and incorporated herein by reference).
- 10.8 First Amendment to the Collaboration Agreement between Rigel and Novartis Pharma AG, dated May 18, 2001 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 (No. 000-29889) and incorporated herein by reference).
- 10.9\* Second Amendment to the Collaboration Agreement between Rigel and Novartis Pharma AG, dated July 6, 2001 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001 (No. 000-29889) and incorporated herein by reference).
- 10.10\* Second Amendment, dated July 1, 2001, to the Collaboration Agreement between Rigel and Cell Genesys, Inc. (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001 (No. 000-29889) and incorporated herein by reference).
- 10.11 First Amendment to the Collaboration Agreement by and between Rigel and Janssen Pharmaceutical N.V., dated June 30, 2000 (filed as an exhibit to Rigel's Annual Report on Form 10-K for the fiscal year ended December 31, 2001 (No. 000-29889) and incorporated herein by reference).
- 10.12 Second Amendment to the Collaboration Agreement by and between Rigel and Janssen Pharmaceutical N.V., dated December 4, 2001 (filed as an exhibit to Rigel's Annual Report on Form 10-K for the fiscal year ended December 31, 2001 (No. 000-29889) and incorporated herein by reference).
- 10.13 Loan and Security Agreement between Rigel and Comerica Bank—California, dated July 12, 2002 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002 (No. 000-29889) and incorporated herein by reference).
- 10.14\* Collaboration Agreement between Rigel and Daiichi Pharmaceutical Co., Ltd., dated August 1, 2002 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002 (No. 000-29889) and incorporated herein by reference).
- 10.15\* Amendment to Build-to-suit lease between Rigel and Slough BTC, LLC, dated October 18, 2002 (filed as an exhibit to Rigel's Annual Report on Form 10-K (No. 000-29889), as amended, for the fiscal year ended December 31, 2002 and incorporated herein by reference).
- 10.16+ Employment Agreement between Rigel and Elliott B. Grossbard, dated as of March 18, 2002 (filed as an exhibit to Rigel's Annual Report on Form 10-K (No. 000-29889), as amended, for the fiscal year ended December 31, 2002 and incorporated herein by reference).
- 10.17\* Collaborative Research and License Agreement by and between Rigel and Pfizer Inc., dated January 18, 2005 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2005 (No. 000-29889) and incorporated herein by reference).

- 10.18\* License and Research Agreement (Amended and Restated) between Rigel and Cell Genesys, Inc., dated September 2, 1999, as amended and restated on March 26, 2001 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005 (No. 000-29889), as amended, and incorporated herein by reference).
- 10.19+ Form of Indemnity Agreement (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007 (No. 000-29889) filed on May 10, 2007, as amended, and incorporated herein by reference).
- 10.20+ 2000 Equity Incentive Plan, as amended (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) filed on May 30, 2008 and incorporated herein by reference).
- 10.21+ 2007 Bonus Plan Payouts for Named Executive Officers (filed as an exhibit to Rigel's Current on Form 8-K (No. 000-29889) filed on February 14, 2008 and incorporated herein by reference).
- 10.22+ 2008 Cash Incentive Compensation Plan (filed as an exhibit to Rigel's Current on Form 8-K (No. 000-29889) filed on February 26, 2008 and incorporated herein by reference).
- 10.23+ 2000 Non-Employee Directors' Stock Option Plan, as amended, as amended (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008 (No. 000-29889) filed on August 5, 2008 and incorporated herein by reference).
- 10.24+# Amended and Restated Employment Agreement between Rigel and Donald Payan, dated November 13, 2008.
- 10.25+# Change of Control Severance Plan.
- 10.26+# 2000 Employee Stock Purchase Plan, as amended.
- 10.27+ 2008 Base Salaries for Named Executive Officers (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008 (No. 000-29889) filed on May 6, 2008 and incorporated herein by reference).
- 23.1# Consent of Independent Registered Public Accounting Firm.
- 24.1 Power of Attorney (included on signature page).
- 31.1# Certification required by Rule 13a-14(a) or Rule 15d-14(a).
- 31.2# Certification required by Rule 13a-14(a) or Rule 15d-14(a).
- 32.1• Certification required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. 1350).

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+ Management contract or compensatory plan.

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

# Filed herewith.

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

## SIGNATURES

Pursuant to the requirements of the Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on February 27, 2009.

RIGEL PHARMACEUTICALS, INC.

By:                     /s/ JAMES M. GOWER                      
                                   James M. Gower  
                                   *Chairman of the Board and Chief Executive  
 Officer*

By:                     /s/ RYAN D. MAYNARD                      
                                   Ryan D. Maynard  
                                   *Vice President and Chief Financial Officer*

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints James M. Gower and Ryan D. Maynard, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place, and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming that all said attorneys-in-fact and agents, or any of them or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>          /s/ JAMES M. GOWER          </u> James M. Gower	Chairman of the Board, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	February 27, 2009
<u>          /s/ RYAN D. MAYNARD          </u> Ryan D. Maynard	Vice President and Chief Financial Officer <i>(Principal Finance and Accounting Officer)</i>	February 27, 2009
<u>          /s/ DONALD G. PAYAN          </u> Donald G. Payan	Executive Vice President, Chief Scientific Officer and Director	February 27, 2009

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ JEAN DELEAGE</u> Jean Deleage	Director	February 27, 2009
<u>/s/ BRADFORD S. GOODWIN</u> Bradford S. Goodwin	Director	February 27, 2009
<u>/s/ GARY A. LYONS</u> Gary A. Lyons	Director	February 27, 2009
<u>/s/ WALTER H. MOOS</u> Walter H. Moos	Director	February 27, 2009
<u>/s/ HOLLINGS C. RENTON</u> Hollings C. Renton	Director	February 27, 2009
<u>/s/ PETER S. RINGROSE</u> Peter S. Ringrose	Director	February 27, 2009
<u>/s/ STEPHEN A. SHERWIN</u> Stephen A. Sherwin	Director	February 27, 2009

## EXHIBIT INDEX

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- 10.9\* Second Amendment to the Collaboration Agreement between Rigel and Novartis Pharma AG, dated July 6, 2001 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001 (No. 000-29889) and incorporated herein by reference).
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- 10.12 Second Amendment to the Collaboration Agreement by and between Rigel and Janssen Pharmaceutical N.V., dated December 4, 2001 (filed as an exhibit to Rigel's Annual Report on Form 10-K for the fiscal year ended December 31, 2001 (No. 000-29889) and incorporated herein by reference).
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- 10.15\* Amendment to Build-to-suit lease between Rigel and Slough BTC, LLC, dated October 18, 2002 (filed as an exhibit to Rigel's Annual Report on Form 10-K (No. 000-29889), as amended, for the fiscal year ended December 31, 2002 and incorporated herein by reference).
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- 10.17\* Collaborative Research and License Agreement by and between Rigel and Pfizer Inc., dated January 18, 2005 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2005 (No. 000-29889) and incorporated herein by reference).
- 10.18\* License and Research Agreement (Amended and Restated) between Rigel and Cell Genesys, Inc., dated September 2, 1999, as amended and restated on March 26, 2001 (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005 (No. 000-29889), as amended, and incorporated herein by reference).
- 10.19+ Form of Indemnity Agreement (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007 (No. 000-29889) filed on May 10, 2007, as amended, and incorporated herein by reference).
- 10.20+ 2000 Equity Incentive Plan, as amended (filed as an exhibit to Rigel's Current Report on Form 8-K (No. 000-29889) filed on May 30, 2008 and incorporated herein by reference).
- 10.21+ 2007 Bonus Plan Payouts for Named Executive Officers (filed as an exhibit to Rigel's Current on Form 8-K (No. 000-29889) filed on February 14, 2008 and incorporated herein by reference).
- 10.22+ 2008 Cash Incentive Compensation Plan (filed as an exhibit to Rigel's Current on Form 8-K (No. 000-29889) filed on February 26, 2008 and incorporated herein by reference).
- 10.23+ 2000 Non-Employee Directors' Stock Option Plan, as amended, as amended (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008 (No. 000-29889) filed on August 5, 2008 and incorporated herein by reference).
- 10.24+# Amended and Restated Employment Agreement between Rigel and Donald Payan, dated November 13, 2008.
- 10.25+# Change of Control Severance Plan.
- 10.26+# 2000 Employee Stock Purchase Plan, as amended.
- 10.27+ 2008 Base Salaries for Named Executive Officers (filed as an exhibit to Rigel's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008 (No. 000-29889) filed on May 6, 2008 and incorporated herein by reference).
- 23.1# Consent of Independent Registered Public Accounting Firm.
- 24.1 Power of Attorney (included on signature page).
- 31.1# Certification required by Rule 13a-14(a) or Rule 15d-14(a).
- 31.2# Certification required by Rule 13a-14(a) or Rule 15d-14(a).

32.1 • Certification required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. 1350).

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+ Management contract or compensatory plan.

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

# Filed herewith.

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

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-148132), pertaining to the 2000 Equity Incentive Plan, the 2000 Employee Stock Purchase Plan and the 2000 Non-Employee Directors' Stock Option Plan of Rigel Pharmaceuticals, Inc.; the Registration Statements (Form S-8 Nos. 333-51184, 333-106532, 333-125895 and 333-134622), pertaining to the 2000 Equity Incentive Plan, the 2000 Employee Stock Purchase Plan and the 2000 Non-Employee Directors' Stock Option Plan of Rigel Pharmaceuticals, Inc.; the Registration Statement (Form S-8 No. 333-72492) pertaining to the 2001 Non-Officer Equity Incentive Plan of Rigel Pharmaceuticals, Inc.; the Registration Statement (Form S-8 No. 333-107062 and 333-139516) pertaining to the 2000 Employee Stock Purchase Plan of Rigel Pharmaceuticals, Inc.; the Registration Statement (Form S-8 No. 333-111782) pertaining to the 2000 Equity Incentive Plan of Rigel Pharmaceuticals, Inc.; and in the Registration Statements (Form S-3 Nos. 333-148838, 333-74906, 333-87276, 333-105431, 333-106942, 333-111777, 333-112746, 333-119785 and 333-129650) and the related Prospectuses, respectively, of our reports dated February 24, 2009, with respect to the financial statements of Rigel Pharmaceuticals, Inc., and the effectiveness of internal control over financial reporting of Rigel Pharmaceuticals, Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 2008.

/s/ ERNST & YOUNG LLP

Palo Alto, California  
February 24, 2009

## CERTIFICATIONS

I, James M. Gower, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rigel Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2009

/s/ JAMES M. GOWER

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James M. Gower  
Chief Executive Officer

## CERTIFICATIONS

I, Ryan D. Maynard, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rigel Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2009

/s/ RYAN D. MAYNARD

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Ryan D. Maynard  
*Vice President and Chief Financial Officer*

**CERTIFICATION**

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

1. The Company's Annual Report on Form 10-K for the period ended December 31, 2008, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act, as amended; and
2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

In Witness Whereof, the undersigned have set their hands hereto as of February 27, 2009.

/s/ JAMES M. GOWER

/s/ RYAN D. MAYNARD

\_\_\_\_\_  
James M. Gower  
*Chief Executive Officer*

\_\_\_\_\_  
Ryan D. Maynard  
*Vice President and Chief Financial Officer*

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

**RIGEL MANAGEMENT TEAM**

James M. Gower  
Chairman of the Board of Directors  
and Chief Executive Officer

Donald G. Payan, MD  
Executive Vice President,  
President of Discovery and Research  
and member of the Board of Directors

Raul R. Rodriguez  
Executive Vice President  
and Chief Operating Officer

Elliott B. Grossbard, MD  
Executive Vice President  
and Chief Medical Officer

Dolly Vance  
Senior Vice President,  
General Counsel  
and Corporate Secretary

Ryan Maynard  
Vice President  
and Chief Financial Officer

**OUTSIDE MEMBERS OF THE  
BOARD OF DIRECTORS**

Jean Deleage, PhD  
Founder and Managing Director,  
Alta Partners

Bradford S. Goodwin  
President and CEO,  
Keren Pharmaceuticals

Gary A. Lyons  
Director,  
Neurocrine Biosciences

Walter H. Moos, PhD  
Vice President - Biosciences Division,  
SRI International

Hollings C. Renton  
Former Chairman, Chief Executive  
Officer and President,  
Onyx Pharmaceuticals

Peter S. Ringrose, PhD  
Chairman,  
Biotechnology and Biological Sciences  
Research Council

Stephen A. Sherwin, MD  
Chairman of the Board of Directors  
and Chief Executive Officer,  
Cell Genesys

**CORPORATE COUNSEL**

Cooley Godward Kronish LLP  
Palo Alto, California

**INDEPENDENT REGISTERED  
PUBLIC ACCOUNTING FIRM**

Ernst & Young LLP  
Palo Alto, CA

**TRANSFER AGENT & REGISTRAR**

Wells Fargo Bank, N.A.  
Shareowner Services  
P.O. Box 64854  
St. Paul, Minnesota 55164  
1-800-468-9716 Tel  
1-651-450-4064 (outside the U.S.)  
Email: Stocktransfer@WellsFargo.com

**ANNUAL MEETING OF  
STOCKHOLDERS**

Date: May 28, 2009  
Time: 10:00 A.M. PT  
Location: 1180 Veterans Boulevard,  
South San Francisco, CA 94080

**CORPORATE HEADQUARTERS**

1180 Veterans Boulevard  
South San Francisco, CA 94080  
www.rigel.com

**INVESTOR RELATIONS**

650-624-1246 Tel  
650-624-1133 Fax  
Email: invrel@rigel.com

This annual report contains statements indicating expectations about future performance and other forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that involve risks and uncertainties. We usually use words such as "may," "will," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "predict," "future," "intend," "potential" or "continue" or the negative of these terms or similar expressions to identify these forward-looking statements. These statements appear throughout this annual report 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 thereof; our corporate collaborations, including revenues that may be received from these collaborations; our drug discovery technologies; our research and development expenses; protection of our intellectual property; the sufficiency of our cash resources; and our operating 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 our Annual Report on Form 10-K for the year ended December 31, 2008. These forward-looking statements speak only as of the date they are 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.



**RIGEL PHARMACEUTICALS, INC.**

1180 Veterans Boulevard

South San Francisco, CA 94080

650.624.1100

[www.rigel.com](http://www.rigel.com)