RIGEL, INC.

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October 5, 2009

VIA EDGAR AND FACSIMILE (202.772.9217)

Mr. Jim B. Rosenberg
Senior Assistant Chief Accountant
U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F. Street, N.E.
Mail Stop 4720
Washington, D.C. 20549

RE: Rigel Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2008 filed on February 27, 2009
Definitive Proxy Statement on Schedule 14A filed on April 15, 2009
File Number: 000-29889

Dear Mr. Rosenberg,

Rigel Pharmaceuticals, Inc. (the "Company") herby responds to the Staff's comment letter, dated September 21, 2009, regarding the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 (the "Form 10-K") and the Company's Definitive Proxy Statement filed on Schedule 14A on April 15, 2009 (the "Proxy Statement"). The following information is provided in response to Staff's comments, which comments are included below in bold. Please note that the heading and number of the responses set forth below correspond to the heading and number of each of the comments contained in the Staff's letter.

Form 10-K for the Fiscal Year Ended December 31, 2008

General

1. *Comment.* We note your disclosure on pages 20-21 that you are a party to in-licensing agreements regarding intellectual property, and that you have also filed two technology related agreements with Cell Genesys and Questcor. Please include in your disclosure a description of the material terms of these two agreements. Further, please advise us as to whether there are any other technology licensing agreements upon which you are substantially dependent, and if so, please file the agreements and describe the material terms of those agreements.

Response. The Company submits that, for the reasons set forth below, the agreements with Cell Genesys, Inc. ("Cell Genesys") and Questcor Pharmaceuticals, Inc. ("Questcor") identified in the Staff's comment are not currently material to the Company. The Company intends to remove the identified agreements as exhibits to future filings with the Securities and Exchange Commission. Since the agreements are not material to the Company, the Company does not believe that it would be appropriate, or is necessary, to add disclosure of the material terms of these agreements to the Form 10-K or other filings. Additional disclosure of the material terms of the license and research agreement between the Company and Cell Genesys, referenced as Exhibits 10.5 and 10.18 to the Form 10-K, and the technology transfer agreement between the Company and Questcor, referenced as Exhibit 10.6 to the Form 10-K, would not provide additional material information relevant to an investor's investment decision with respect to the Company's securities, and none of the agreements with Cell Genesys and Questcor identified in the Staff's comment is required to be filed as an exhibit under Regulation S-K Item 601(b)(10)(ii)(B).

The license and research agreement with Cell Genesys, which was entered into in 1999 and amended and restated in 2001, relates to post-genomics combinatorial biology technology to identify therapeutic peptide, protein and gene products related to angiogenesis and tumor growth. Under the agreement, Cell Genesys was granted (i) exclusive, royalty-free worldwide rights to make, use and commercialize therapeutic peptide, protein and gene products in the field of gene therapy, (ii) the right to make and use intracellular drug targets with which their gene therapy products bind for the sole purpose of the research and development of gene therapy products and (iii) the option to obtain rights under some of the Company's cell lines and associated technology to make and commercialize gene therapy products. In exchange for the Company's research efforts and the license granted to Cell Genesys, the Company was granted a royalty-free, worldwide right to specified Cell Genesys patents and technology pertaining to retroviral gene delivery technology for use in the field of post-genomics combinatorial biology. The agreement terminates upon the expiration of the last patent within the agreement. In 2002, the Company finalized its research related to angiogenesis and tumor growth and, in February 2009, the Company further reduced its oncology related research programs. Currently, the Company does not utilize in any material respect its right to use Cell Genesys patents and technology granted under the license and research agreement, and none of the Company's material product development programs relies on the patents or technology granted under the license and research agreement. Accordingly, the Company has concluded that the license and research agreement is not material to the Company's business, and that additional disclosure of the material terms of the license and research agreement with Cell Genesys would not provide additional material information relevant to an investor's investment decision with respect to the Company's securities.

Pursuant to Regulation S-K Item 601(b)(10)(ii)(B), if a contract is of a sort that ordinarily accompanies the kind of business conducted by the Company, it is deemed to be ordinary course and need not be filed unless it is a "contract upon which the registrant's business is substantially dependent." The rule provides examples of substantial dependence, including any "license or other agreement to use a patent, formula, trade secret, process or trade name upon which registrant's business depends to a material extent." The license and research agreement between the Company and Cell Genesys was made in the ordinary course of business and is of the type ordinarily accompanying the kind of business conducted by the Company (i.e., an intellectual property license and research collaboration). Further, the Company's business is not "substantially dependent" upon the license and research agreement with Cell Genesys in that the Company is not materially dependent on its right to use Cell Genesys patents and technology granted under the license and research agreement. Accordingly, the Company has concluded that the license and research agreement with Cell Genesys is no longer required pursuant to Regulation S-K Item 601(b)(10)(ii)(B) to be filed as an exhibit. The Company intends to remove the filed agreements as exhibits to future filings with the Securities and Exchange Commission.

The technology transfer agreement between the Company and Questcor, referenced as Exhibit 10.6 to the Form 10-K, which was entered into in 2000, relates to a Hepatitis C IRES program. Under the agreement, the Company was committed to invest in research and development expenses over a two-year period through 2002 to

identify compounds that interfere with the IRES translation mechanism of the hepatitis C virus. The agreement terminates upon the expiration of the last patent within the agreement. Since 2002, the Company has not pursued a Hepatitis C IRES program. Currently, the Company does not utilize in any material respect the research and technology developed under its Hepatitis C IRES program or otherwise in connection with the technology transfer agreement, and none of the Company's material product development programs relies on the technology developed under its Hepatitis C IRES program or otherwise in connection with the technology transfer agreement. Accordingly, the Company has concluded that additional disclosure of the material terms of the technology transfer agreement with Questcor would not provide additional material information relevant to an investor's investment decision with respect to the Company's securities.

The technology transfer agreement between the Company and Questcor was made in the ordinary course of business and is of the type ordinarily accompanying the kind of business conducted by the Company (i.e., an intellectual property license and research collaboration). Further, the Company's business is not "substantially dependent" upon the technology transfer agreement with Questcor in that the Company's business is not materially dependent on the technology related to the technology transfer agreement. Accordingly, the Company has concluded that the technology transfer agreement with Questcor is no longer required pursuant to Regulation S-K Item 601(b)(10)(ii)(B) to be filed as an exhibit. The Company intends to remove this agreement as an exhibit to future filings with the Securities and Exchange Commission.

The Company confirms that there are no other technology licensing agreements currently in effect upon which the Company is substantially dependent.

The Company acknowledges its obligation to regularly review each of its technology licensing agreements and other similar arrangements to evaluate their materiality, and file any such agreement as an exhibit if at any time the Company determines it has become material and is required to be filed as an exhibit pursuant to Item 601 of Regulation S-K.

Business - Corporate Collaborations, page 8

2. ***Comment.*** **Please expand your disclosure here to provide a separate discussion for each of your collaboration agreements, and to provide the material terms of each of those agreements including, but not limited to: the subject of the collaboration agreement; the duration of the agreement; any upfront payments; any milestone payments to be paid and the milestones to be achieved; any ongoing royalty rates; and any termination provisions.**

Response. The Company advises the Staff that detailed information regarding collaboration agreements is disclosed under the heading "Sponsored Research and License Agreements" in Note 2 to the Financial Statements and Supplementary Data included under Item 8 of the Form 10-K (beginning on page 52). In response to the Staff's comment, commencing with our Annual Report on Form 10-K for the fiscal year ending December 31, 2009, the Company will enhance the disclosure under the heading "Business – Corporate Collaborations", as reflected in the proposed disclosure set forth on Exhibit A attached hereto.

3. ***Comment.*** **Please also expand your disclosure to include the material terms of your collaboration agreements with Merck and Merck Serono, and attach each of these agreements as exhibits.**

Response. In response to the Staff's comment, the Company respectfully submits that (i) commencing with our Annual Report on Form 10-K for the fiscal year ending December 31, 2009, we will enhance the disclosure under the heading "Business – Corporate Collaborations", as reflected in the proposed disclosure set forth on Exhibit A attached hereto, and (ii) for the reasons set forth below, neither agreement referenced in the Staff's comment is required to be filed as an exhibit under Regulation S-K Item 601(b)(10)(ii)(B).

Pursuant to Regulation S-K Item 601(b)(10)(ii)(B), if a contract is of a sort that ordinarily accompanies the kind of business conducted by the Company, it is deemed to be ordinary course and need not be filed unless it is a "contract upon which the registrant's business is substantially dependent." The rule provides examples of substantial dependence, including any "license or other agreement to use a patent, formula, trade secret, process or trade name upon which registrant's business depends to a material extent." The Company submits that neither of the agreements referenced above is required to be filed as an exhibit pursuant to Regulation S-K Item 601(b)(10)(ii)(B).

The collaboration agreement between the Company and Merck & Co., Inc. ("Merck") was made in the ordinary course of business and is of the type ordinarily accompanying the kind of business conducted by the Company (i.e., a research collaboration). Further, the Company's business is not "substantially dependent" upon the collaboration agreement with Merck. In 2004, the Company entered into the collaboration agreement with Merck to investigate ubiquitin ligases to find treatments for cancer and potentially other diseases in exchange for certain milestone payments and royalties. Under the agreement, the research phase of the collaboration terminated in 2007, and the Company performed all of its obligations to Merck under the agreement. Currently, the Company does not depend in any material respect on the milestone payments, royalties or other rights and benefits under the collaboration agreement with Merck, and none of the Company's material product development programs relies on the collaboration agreement. Accordingly, the Company's business is not materially dependent on the collaboration agreement, which is the prerequisite for such agreement to be deemed a "material contract" that is required to be filed as an exhibit under Regulation S-K Item 601(b)(10)(ii)(B). For the foregoing reasons, the Company has concluded that such agreement is currently not required to be filed as an exhibit under Regulation S-K Item 601(b)(10)(ii)(B).

The collaborative research and license agreement between the Company and Merck Serono was made in the ordinary course of business and is of the type ordinarily accompanying the kind of business conducted by the Company (i.e., a research collaboration). Further, the Company's business is not "substantially dependent" upon the collaborative research and license agreement with Merck Serono. In 2005, the Company entered into the collaborative research and license agreement with Merck Serono granting Merck Serono an exclusive license to develop and commercialize product candidates from the Company's aurora kinase inhibitor program, with a particular focus on R763, in exchange for certain milestone payments and royalties. Under the agreement, the research phase of the collaboration terminated in 2006 and the Company performed all of its obligations to Merck Serono under the agreement. Currently, the Company does not depend in any material respect on the milestone payments, royalties or other rights and benefits under the collaborative research and license agreement with Merck Serono, and none of the Company's material product development programs rely on the collaborative research and license agreement. Accordingly, the Company's business is not materially dependent on the collaborative research and license agreement, which is the prerequisite for such agreement to be deemed a "material contract" that is required to be filed as an exhibit under Regulation S-K Item 601(b)(10)(ii)(B). For the foregoing reasons, the Company has concluded that such agreement is currently not required to be filed as an exhibit under Regulation S-K Item 601(b)(10)(ii)(B).

Business - Intellectual Property, page 9

4. ***Comment.*** **Please expand your disclosure here to include all of your material patents, which product groups they relate to, and expiration dates for the patents. Refer to Item 101(h)(4)(vii) of Regulation S-K for guidance.**

Response. In response to the Staff's comment, commencing with our Annual Report on Form 10-K for the fiscal year ending December 31, 2009, we will enhance the disclosure under the heading "Business — Intellectual Property" to include the following description of the Company's existing material patents:

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

Critical Accounting Policies and the Use of Estimates - Research and Development Accruals, page 35

5. ***Comment.*** **Where research and development activities are a substantial aspect of the company's operations, the following information should be disclosed for each major research and development project:**

- **The costs incurred during each period presented and to date on the project;**
- **The nature, timing and estimated costs of the efforts necessary to complete the project;**
- **The anticipated completion dates;**
- **The risks and uncertainties associated with completing development on schedule, and the consequences to operations, financial position and liquidity if the project is not completed timely; and finally**
- **The period in which material net cash inflows from significant projects are expected to commence.**

If research and development costs are not maintained by project, disclose that fact and explain why management does not maintain and evaluate research and development costs by project. Provide other quantitative or qualitative disclosure that indicates the amount of the company's resources being used on the project.

To the extent that dates or amounts are not estimable, disclose the facts and circumstances that preclude making a reasonable estimate.

Response. To address the Staff's comment, we have broken down our response to correspond to the bullet points above.

First Bullet Point.

The Company does not track fully burdened research and development costs separately for each of its drug candidates. Although the Company tracks third party research and development expenses directly related to each drug candidate as a way of monitoring external costs, such expenses only represent a portion of the total costs related to each drug candidate. In managing our research and

development activities, third party expenditures are considered only in the context of the qualitative factors listed below. The Company's third party research and development expenditures relate primarily to its clinical trials in connection with development activities and manufacturing of active pharmaceutical ingredients for such clinical trials. The Company does not accumulate internal research and development expenses, such as personnel costs and facility costs, on a specific program-by-program basis. We do not believe that accumulating internal research and development expenses on a specific drug candidate basis provides a meaningful measure of performance as internal resources are typically utilized among programs as the need arises. We believe that disclosure of only third party expenditures by each drug candidate would not be meaningful to an investor's investment decision with respect to the Company's securities and could potentially be misleading.

The Company reviews its research and development expenses by focusing on three categories: research; development; and other. Our research team is focused on creating a portfolio of product candidates that can be developed into small molecule therapeutics in our own proprietary programs or with potential collaborative partners and utilizes our robust discovery engine to rapidly discover and validate new product candidates in a broad range of therapeutic indications. "Research" expenses relate primarily to personnel expense, fees to third party research consultants, lab supplies and compounds. Our development group leads the implementation of our clinical and regulatory strategies and prioritizes disease indications in which our compounds may be studied in clinical trials. "Development" expenses relate primarily to clinical trials and related personnel, fees to consultants and supplies. "Other" expenses primarily include allocated stock-based compensation expense relating to personnel in research and development groups and allocated facilities costs. To date, the Company has not tracked costs incurred in each research and development expense category, but will do so going forward.

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

In response to the Staff's comment, in lieu of the disclosures included in the final two paragraphs under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations — Research and Development Expenses" in the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, the Company proposes to include additional disclosure under the heading "Research and Development Expenses" before "Recent Accounting Pronouncements" in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our future annual reports on Form 10-K and quarterly reports on Form 10-Q, commencing with our Quarterly Report on Form 10-Q for the quarter ended September 30, 2009, substantially as set forth on Exhibit B hereto. The disclosure would include disclosure of the three categories of our research and development expenses and would present expenses attributable thereto for the periods covered by the report. We would also disclose those programs that we believe represented the greatest portion of our research and development expenses, based on estimates of our research and development efforts and expenses, during the most recent period covered by the report. Since the estimates attributed to specific programs would be derived, in part, from non-financial management tools, we would not include quantitative disclosure of the estimates themselves. The disclosure would indicate that management has not tracked fully burdened research and development costs separately for each program, and that the Company did not track costs incurred in each research and development expense category to date prior to the preparation of our Quarterly Report on Form 10-Q for the quarter ended September 30, 2009.For our future annual reports on Form 10-K and quarterly reports on Form 10-Q after our Quarterly Report on Form 10-Q for the

quarter ended September 30, 2009, the disclosure also would include disclosure of total research and development expenses by category from January 1, 2007 to the end of the most recently completed period.

Second, Third and Fifth Bullet Points.

The Company cannot predict whether or when regulatory clearance will be obtained for any product that either we or our current or potential future collaborative partners plan to develop. It typically takes many years to satisfy regulatory requirements, and there is a high degree of uncertainty with respect to the final results of required clinical trials. Data obtained from preclinical and clinical activities are also susceptible to varying interpretations that could delay, limit or prevent regulatory approvals. The Company has publicly stated that it continues to pursue a collaboration partner for its lead program, the development of R788 for the treatment of rheumatoid arthritis, or RA, with the intent to enter into a collaboration agreement prior to initiating a Phase 3 clinical trial evaluating R788 in RA. The uncertainty of the timing and terms of this potential collaboration arrangement results in further uncertainty with respect to the clinical development path for this major part of our development pipeline. The length of time for a clinical trial may also vary substantially according to factors relating to the particular clinical trial, such as the type and intended use of the drug candidate, the clinical trial design and the ability to enroll suitable patients. In addition, even after a development path is determined, delays or rejections may be encountered based upon additional government regulation from future legislation or administrative action or changes in Food and Drug Administration, or FDA, policy during the period of product development, clinical trials and FDA regulatory review. It may be necessary to undertake additional unanticipated clinical trials during the development path. We cannot

ensure that any drug 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 current or potential future collaborative partners, to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities. The foreign regulatory approval process typically includes all of the risks associated with FDA approval described above and may also include additional risks. These factors prevent the Company from reasonably estimating the total costs to complete the development of any of our drug candidates and the anticipated completion dates. In addition, we do not have a reasonable basis to determine when or if material net cash inflows from the commercialization and sale of our drug candidates will occur. To date, we have not commercialized any of our drug candidates, and we may never do so.

In response to the Staff's comment, in lieu of the disclosures included in the final two paragraphs under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations — Research and Development Expenses" in the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, the Company proposes to include additional disclosure under the heading "Research and Development Expenses" before "Recent Accounting Pronouncements" in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our future annual reports on Form 10-K and quarterly reports on Form 10-Q, commencing with our Quarterly Report on Form 10-Q for the quarter ended September 30, 2009, substantially as set forth onExhibit B hereto, which includes disclosure as to the uncertainty of the timing of development, costs and material net cash inflows regarding our drug candidates.

Fourth Bullet Point.

As noted above, the Company does not believe it is possible to reliably determine completion dates for the development of each of the Company's drug candidates. The Company believes that the primary risks and uncertainties with respect to product development and the consequences to the

Company's operations, financial position and liquidity are disclosed in the Company's Form 10-K in "Item 1A. RiskFactors" (and in the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2009) under the following headings:

- "Our future funding requirements will depend on many uncertain factors."
- "We might not be able to commercialize our product candidates successfully if problems arise in the clinical testing and approval process."
- "There is a high risk that drug discovery and development efforts might not successfully generate good product candidates."
- "Delays in clinical testing could result in increased costs to us."
- "Because we expect to be dependent upon collaborative and license agreements, we might not meet our strategic objectives."
- "If our corporate collaborations or license agreements are unsuccessful, our research and development efforts could be delayed."
- "If conflicts arise between our collaborators or advisors and us, any of them may act in their self-interest, which may be adverse to our stockholders' interests."

In response to the Staff's comment, the Company proposes to include additional disclosure under the heading "Research and Development Expenses" before "Recent Accounting Pronouncements" in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our future annual reports on Form 10-K and quarterly reports on Form 10-Q, commencing with our Quarterly Report on Form 10-Q for the quarter ended September 30, 2009, substantially as set forth onExhibit B hereto, which includes a cross reference to the risk factors identified above.

Schedule 14A filed April 15, 2009

Compensation Discussion and Analysis - 2008 Executive Compensation, page 30

6. *Comment.* We note your disclosure that a number of factors were taken into account in raising the base salaries of your named executive officers in January 2008, including, "accomplishments against personal and group objectives." Please expand your disclosure to include each of the objectives, and the level of accomplishment of those objectives, that were considered in setting base salaries.

Response. In establishing the 2008 base salaries of our Named Executive Officers, the Compensation Committee of our Board of Directors considered the achievement of the following group objectives: the extent to which product candidates were advanced through clinical development, expenses were managed in order to maximize available cash for clinical trials and research progressed to identify potential leads for the development of new product candidates. In 2007, the focus of our clinical development was on our product candidate R788, which was in or entering clinical trials in rheumatoid arthritis (RA), immune thrombocytopenic purpura (ITP) and lymphoma. Management was required to conserve spending on other programs or new endeavors in order to pursue R788 in phase 2b clinical trials during 2008 and 2009 in the event R788 was successful in the RA clinical trials conducted in 2007. The Compensation Committee also considered the following personal objectives: an executive's leadership and professionalism in heading his or her respective team in a manner which encouraged individuals to perform at their best. In assessing such objectives, the Compensation Committee considered certain intangible characteristics (such as the ability to motivate teams and instill loyalty) , as well as tangible characteristics (such as turn-over trends within a group, meeting deadlines and results of certain projects).

In 2007, the Named Executive Officers were successful in achieving the group objectives: the Company initiated clinical trials for syk inhibitor R788 in patients with ITP as well as lymphoma, completed enrollment of RA patients for testing R788 and ended the year financially in a position to plan and begin enrolling phase 2b clinical trials for R788 in RA patients in 2008. In addition, the results of these clinical trials were successful as the phase 2b clinical trials for R788 in RA patients could begin in 2008, and the interim results for the clinical trials for R788 with ITP and lymphoma patients showed proof of concept. As a result, each Named Executive Officer's responsibilities would be increased in 2008 in order to maximize the value of R788 to the Company. Each Named Executive Officer also was successful in achieving his personal objectives in 2007.

The Company does not believe that it would be material to investors at this time to expand past disclosures with respect to 2008 compensation decisions. In response to the Staff's comment, commencing with our proxy statement in connection with our 2010 annual stockholders meeting, we will enhance the disclosure under the heading "Compensation Discussion and Analysis - Executive Compensation - Base Salaries" with respect to personal and group objectives and the accomplishment of such objectives, to the extent such objectives are relevant in establishing the base salaries of our Named Executive Officers.

Compensation Discussion and Analysis - Short-Term Cash Incentive Compensation, page 31

7. *Comment.* We note that, due to market conditions, your company elected not to award incentive bonuses in 2008. However, we still believe that disclosure of the corporate goals that were set and the extent of achievement of those goals is material to an investor's understanding of your overall compensation strategy. Please provide us with draft disclosure for your 2010 proxy statement which provides the following:

- **The specific corporate performance criteria and minimum, target and maximum levels of performance; and**
- **A discussion of how the level of achievement will affect the actual bonuses to be paid.**

To the extent any of the performance criteria are quantifiable; the discussion in your proxy statement should include quantitative information.

Please also confirm that you will discuss the extent to which these performance criteria or objectives were achieved even if you decide not to award any short term incentive bonuses.

Response. The Company advises the Staff that information regarding corporate performance criteria (our 2009 corporate goals) is disclosed under the heading "Executive Compensation — Compensation Discussion & Analysis — 2009 Executive Compensation—Short-Term Incentive Compensation" in the Proxy Statement (beginning on page 32). Specifically, the Company disclosed that our 2009 corporate goals relate to clinical development of our current product candidates, expansion of our pipeline and our cash position at the end of 2009. However, as described below, the Compensation Committee retains the ability to establish additional Company performance goals, and the Board and Compensation Committee reserve the right to modify goals and criteria at any time.

In considering the extent of success in achieving the clinical development goal, the Compensation Committee will consider the execution and results of all of the clinical trials for R788, with a focus on the phase 2b clinical trial for RA. In general, success is measured by our completion of clinical trials as well as our ability to plan the next clinical trials and whether certain clinical trials show statistically significant

results. As the clinical trials for R788 in different types of lymphoma were initiated in 2008, the execution and results of such clinical trials also will be considered when measuring the extent of success in achieving the clinical development goal. The results of the end of our phase 2 meeting with the FDA will also be a consideration when determining the success in achieving the clinical development goal, with a focus on our ability to advance R788 in a timely manner following the meeting. The extent of success in expanding our pipeline will be dependent on whether we identify any novel compounds to take into pre-clinical development. The extent of success in meeting our cash position goal will be determined by our progress in securing funding to take R788 forward into phase 3 clinical trials for RA, should we be successful in meeting our clinical development goal.

The corporate goals do not include minimum, target and maximum levels of performance with respect to each goal. However, to award any bonus, the Compensation Committee would require at least some progress in meeting the clinical development goal. The corporate goals are generally not quantifiable, other than our goal with respect to our cash position, which would not be appropriate to disclose for a current year in light of the negative impact of such disclosure on the Company's financing and corporate collaboration negotiating leverage.

The Proxy Statement also includes under the under the heading "Executive Compensation — Compensation Discussion & Analysis — 2009 Executive Compensation—Short-Term Incentive Compensation" (beginning on page 32) disclosure that target bonus levels for our executive officers if the Company performs at plan range from 40% to 60% of the executive officer's base salary for 2009, and that the Compensation Committee, in its discretion, may grant bonuses in excess of target bonus levels, up to a maximum of 80% to 120% of the executive officer's base salary, depending on the executive officer's position and responsibilities, and that the Compensation Committee will continue to consider current economic conditions when evaluating whether and to what extent to award cash incentive awards.

The Proxy Statement also includes a reference to the Company's 2009 Cash Incentive Plan, filed as an exhibit to the Company's Current Report on Form 8-K filed on April 1, 2009 (the "Plan"). Under the Plan, cash bonuses, if any, are determined at the discretion of the Compensation Committee, the Compensation Committee retains the ability to establish additional Company performance goals, and the Board and Compensation Committee reserve the right to modify goals and criteria at any time or to grant bonuses to the participants even if the performance goals are not met. Accordingly, under the Plan, the payment of bonuses is highly discretionary.

In response to the Staff's comment, commencing with the Company's proxy statement in connection with our 2010 annual stockholders meeting, the Company will include enhanced disclosure regarding the Company's corporate performance criteria and, to the extent applicable, minimum, target and maximum levels of performance, for the prior and current years, and how the level of achievement in the prior year affected the actual bonuses to be paid with respect to the prior year's performance. To the extent that any of the performance criteria are quantifiable, the discussion in the proxy statement will include quantitative information with respect to the prior year. However, based on the highly discretionary nature of bonus payments under the Plan and the Compensation Committee's ability to add or modify performance criteria, the Company does not believe that it is possible to provide at this time draft disclosure as to the Company's 2009 corporate performance criteria and how the level achievement will affect actual bonuses to be paid with respect to 2009 performance. A number of factors will determine the actual bonuses to be paid, if any, in 2010 based on 2009 performance. The achievement of previously identified corporate goals for 2009, and additional factors that may be deemed relevant by the Compensation Committee later this year or in early 2010, will be assessed by the Compensation Committee in its discretion. As a result, the Company does not believe that it is possible to provide at this

time draft disclosure for our 2010 proxy statement that prospectively describes this decision-making process of the Compensation Committee.

The Company confirms that it will discuss the extent to which performance criteria or objectives were achieved even if the Company does not award any short term incentive bonuses.

* * * *

In connection with the Company's response to the Staff's comments, the Company acknowledges the following:

- The Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- The Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Should you have additional questions or comments regarding the foregoing, please contact the undersigned at (650) 624-1284 or Dolly A. Vance, Senior Vice President, General Counsel and Corporate Secretary of the Company at (650) 624-1327.

Sincerely,

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

cc: Dolly A. Vance, Senior Vice President, General Counsel and Corporate Secretary
Suzanne Sawochka Hooper, Cooley Godward Kronish LLP

EXHIBIT A

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.

Johnson & Johnson

From December 1998 thru 2003, we engaged in a research collaboration with Janssen Pharmaceutica N.V., a division of Johnson & Johnson, to identify, discover and validate novel drug targets that regulate cell cycle, and, specifically, to identify drug targets and the active peptides that bind to them that can restore a mutated cell's ability to stop uncontrolled cell division. We entered into an amendment in July 2000, which expanded the collaboration by having us perform compound screening and medicinal chemistry on some of the validated targets accepted by Johnson & Johnson. We have identified several novel drug targets in this program, nine of which have been accepted by Johnson & Johnson as validated and two of which completed high-throughput screening, or HTS, at our facilities. Johnson & Johnson continues to be obligated to pay us various milestones and royalties if certain conditions are met.

Pfizer

Effective January 1999, we entered into a research collaboration with Pfizer to identify and validate intracellular drug targets that control and inhibit the production of IgE in B-cells in the area of asthma/allergy. The research phase of the collaboration was initially scheduled to end in January 2001, but Pfizer elected to exercise its option to extend the collaboration to January 2002. During the research phase, the collaboration was successful in identifying several intracellular drug targets that control the production of IgE, a key mediator in allergic reactions and asthma in B-cells. Through the conclusion of the research phase of the collaboration, which was extended to February 2002, Pfizer accepted a total of seven validated targets. Pfizer continues to be obligated to pay us various milestones and royalties if certain conditions are met.

In January 2005, we entered into a second research collaboration with Pfizer that has a license component. The collaboration is for the development of inhaled products for the treatment of allergic asthma and other respiratory diseases such as COPD. The collaboration was primarily focused on our preclinical small molecule compounds, which inhibit IgE receptor signaling in respiratory tract mast cells by blocking the signaling enzyme Syk kinase. A goal of the collaboration was for Pfizer to nominate a licensed compound to commence advanced preclinical development. We earned a milestone payment upon the selection of this compound, and will earn milestone payments in connection with other clinical events, as well as 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.

Novartis

In May 1999, we entered into a broad collaboration with Novartis Pharma AG, pursuant to which we and Novartis agreed to work on up to five different research programs to identify various targets for drug development. Two programs were initiated in 1999 while the third program to be conducted at Novartis was initiated on January 1, 2000. In July 2001, we expanded our collaboration with Novartis with the initiation of our angiogenesis program, the fourth and final program in our Novartis collaboration as Novartis chose not to exercise its option to add a fifth project that was to be conducted at Novartis. Pursuant to the expanded Novartis collaboration, we received a $4.0 million up-front payment from Novartis, which was recognized as revenue ratably through July 2004. We currently have no programs with Novartis in the research phase. Novartis remains obliged to pay us various milestones and royalties in the future if certain conditions are met.

Daiichi

In August 2002, we signed an agreement for a collaboration with Daiichi to pursue research related to a specific target from a novel class of drug targets called ligases that control cancer cell proliferation through protein degradation. Daiichi paid us $0.9 million at the time we entered into the agreement, and three milestone payments totaling $4.6 million. The research phase of this three-year collaboration expired in August 2005. In addition, we are entitled to receive royalties on any commercialized products to emerge from the collaboration. Under terms of the agreement, we retain the rights to co-develop and co-promote certain products resulting from this collaboration in North America while Daiichi retains co-development and promotion rights in the remainder of the world. Daiichi may become obligated to pay us certain other milestone payments, and we are also entitled to receive royalties on any commercialized products to emerge from the collaboration.

Merck

In November 2004, we entered into a broad collaboration agreement with Merck to investigate ubiquitin ligases, a new class of drug target, to find treatments for cancer and potentially other diseases. Under the terms of the agreement, we received an initial cash payment and funding for our research scientists for two and a half years. The collaboration is based on a number of new targets designated by Merck. Merck is responsible for worldwide development and commercialization of any resulting compounds and will pay us royalties on future product sales, if any. Merck remains obligated to pay us various milestones and royalties in the future if certain conditions are

met.

Merck Serono

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.

EXHIBIT B

Research and Development Expenses

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

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

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

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Research	$ —	$ 6,479	$ —	$ 18,460
Development	$ —	$ 17,398	$ —	$ 40,633
Other	$ —	$ 7,356	$ —	$ 22,175
	$ —	$ 31,232	$ —	$ 81,268

We have not tracked research and development expenses to date in these categories prior to our preparation of this Quarterly Report on Form 10-Q. “Other” expenses above mainly represent allocated stock-based compensation expenses of approximately $- and $3.0 million and allocated facilities costs of approximately $- and $4.4 million for the three months ended September 30, 2009 and 2008, respectively, and allocated stock-based compensation expenses of approximately $- and $9.2 million and allocated facilities costs of approximately $13 million for the nine months ended September 30, 2009 and 2008, respectively.

For the three and nine months ended September 30, 2009 and 2008, respectively, the major portion of our research and development expenses, based on our estimated allocation of our research and development efforts and expenses, were associated with our two Phase 2b clinical trials (TASKi2 and TASKi3), as well as the related extension trials in RA patients.

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

We currently do not have reliable estimates of total costs for a particular drug candidate to reach the market. Our potential products are subject to a lengthy and uncertain regulatory process that may involve unanticipated additional clinical trials and may not result in receipt of the necessary regulatory approvals. Failure to receive the necessary regulatory approvals would prevent us from commercializing the product candidates affected. In addition, clinical trials of our potential products may fail to demonstrate safety and efficacy, which could prevent or significantly delay regulatory approval. We do not have a reasonable basis to determine when or if material net cash inflows from the commercialization and sale of our drug candidates will occur. Commercialization of our product candidates depends upon successful completion of extensive preclinical studies and clinical trials to demonstrate their safety and efficacy for humans. We do not know whether we, or any of our current or potential future collaborative partners, will be undertake clinical trials of potential products beyond the trials already concluded and the trials currently in process. It will take us, or our current or potential future collaborative partners, several years to complete any such testing, and failure can occur at any stage of testing. Interim results of trials do not necessarily predict final results, and acceptable results in early trials may not be repeated in later trials. Moreover, we or our current or potential future collaborative partners

may decide to discontinue development of any development project at any time for regulatory, commercial, scientific or other reasons. To date, we have not commercialized any of our drug candidates, and we may never do so.

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

- "Our future funding requirements will depend on many uncertain factors."
- "We might not be able to commercialize our product candidates successfully if problems arise in the clinical testing and approval process."
- "There is a high risk that drug discovery and development efforts might not successfully generate good product candidates."
- "Delays in clinical testing could result in increased costs to us."
- "Because we expect to be dependent upon collaborative and license agreements, we might not meet our strategic objectives."
- "If our corporate collaborations or license agreements are unsuccessful, our research and development efforts could be delayed."
- "If conflicts arise between our collaborators or advisors and us, any of them may act in their self-interest, which may be adverse to our stockholders' interests."