

Via Facsimile and U.S. Mail
Mail Stop 4720

September 21, 2009

Ryan D. Maynard
Vice President and
Chief Financial Officer
Rigel Pharmaceuticals, Inc.
1180 Veterans Blvd.
South San Francisco, CA 94080

**Re: Rigel Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2008
Filed February 27, 2009
Schedule 14A filed April 15, 2009
File Number: 000-29889**

Dear Mr. Maynard:

We have reviewed your filings and have the following comments. In our comments, we ask you to provide us with information to better understand your disclosure. Where a comment requests you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe that revised disclosure is necessary, explain the reason in your response. After reviewing the information provided, we may raise additional comments and/or request that you amend your filings.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

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

General

1. 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.

Business

Corporate Collaborations, page 8

2. 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.
3. 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.

Intellectual Property, page 9

4. 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.

Critical Accounting Policies and the Use of Estimates

Research and Development Accruals, page 35

5. 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.

Definitive Proxy Statement filed on Schedule 14A

Compensation Discussion and Analysis
2008 Executive Compensation, page 30

6. 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.

Short-Term Cash Incentive Compensation, page 31

7. 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.

* * * *

Please provide us the information requested within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response that keys your response to our comments. Detailed cover letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its

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management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in your letter, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

Please contact Dana Hartz, Staff Accountant, at (202) 551-3648 or Don Abbott, Review Accountant, at (202) 551-3608 if you have any questions regarding the processing of your response as well as any questions regarding comments on the financial statements and related matters. You may contact Michael Rosenthal, Staff Attorney, at (202) 551-3674 or Jeffrey Riedler, Assistant Director, at (202) 551-3715 with questions on any of the other comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief
Accountant